

~~SECRET/US OFFICIALS ONLY/SECURITY INFORMATION~~
CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT NO. [REDACTED]

CD NO. [REDACTED]

DATE DISTR. 13 MAY 52

COUNTRY Germany (West Zones)

SUBJECT Microbiology Research and Laboratories

NO. OF PAGES 50

PLACE ACQUIRED Cities in West Germany

NO. OF ENCLS. (LISTED BELOW)

DATE ACQUIRED BY SOURCE [REDACTED]

SUPPLEMENT TO REPORT NO.

DATE OF INFORMATION [REDACTED]

GRADING OF SOURCE BY OFFICE OF ORIGIN						SOURCE'S OPINION OF CONTENT					
COMPLETELY RELIABLE	USUALLY RELIABLE	FAIRLY RELIABLE	NOT USUALLY RELIABLE	NOT RELIABLE	CANNOT BE JUDGED	TRUE	PROBABLY TRUE	POSSIBLY TRUE	DOUBTFUL	PROBABLY FALSE	CANNOT BE JUDGED
A.	B. X	C.	D.	E.	F.	1.	2. X	3.	4.	5.	6.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANINGS OF THE ESPIONAGE ACT 50 U. S. C. 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

SOURCE

1. [REDACTED] I traveled through West Germany visiting the laboratories of German scientists in order to discuss with them their work in the biological sciences. I found the condition of German microbiology not healthy. There has been little growth in this field. Microbiology in Germany may be practiced in departments of public health, botany, chemistry, fermentation science or soil science but it has shown no spectacular developments as have been made in the US. Just as microbiology in West Germany still deals with little else than the taxonomic and ecological phases of the field, so bacteriology in West Germany, which, in the German sense, means hygiene, public health and medical microbiology and is taught and practiced in medical and veterinary faculties and public health laboratories, has remained to a large extent routine medical and sanitary bacteriology. This is due, in part, of course, to the lack in West Germany of large antibiotic and fermentation industries and also to the fact that West Germany has had no recent need for BW personnel. There is also little question that small budgets have slowed down scientific development in West Germany but it is my opinion that the inflexibility of the German system of higher education itself has been the heaviest millstone. The medical schools may train fairly adequate physicians but what the biological sciences in West Germany need most today are men with vision and ideas. In all of my comments, "microbiology" is used to mean all aspects concerning the study of microorganisms, not only medical bacteriology. "Biochemistry" refers to the dynamic aspects of the field, as practiced by Meyerhof and Warburg. Organic chemistry of natural products (by some also considered to be biochemistry, a field that is poorly defined) still thrives in Germany; the same cannot be said for dynamic biochemistry. The following are my specific observations of individual laboratories in West Germany:

[REDACTED]

(b)(3)

(b)(3)

(b)(1)
(b)(3)

(b)(1)
(b)(3)

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 2 -

BERLIN2. KAISER WILHELM INSTITUT FUER ZELLPHYSIOLOGIEDirector: Warburg, Professor Otto

The Kaiser Wilhelm Institut fuer Zellphysiologie in Berlin is so well known that I have little to add. It is a top-notch institute and, in terms of equipment, it seems well provided.

Its director, Professor Otto Warburg, is a controversial figure and one can hardly be neutral about him. One is either attracted by his unquestionable genius or appalled by the intolerable arrogance which he sometimes exhibits. Professor Warburg has always been most charming in my company and returned hospitality which I extended to him in the US in 1948 most graciously. In terms of intellectual stimulation, I find him very thought-provoking.

Professor Warburg has given his efforts during the last few years toward establishing the quantum efficiency of photosynthesis. I believe he is still following the practice of hiring non-academic personnel (trained in schools to be technicians) and further training them himself. He indicated that he would like Lynen, Feodor, of the University of Munich, to take his place when he retires.

Warburg thinks harshly of his former associates, Kubowitz and Christian [fnu]. Kubowitz reported him to the Gestapo and Christian embezzled funds. As of September 1951, Kubowitz is doing chemical work for the Charité Hospital and Christian is unemployed.

3. ROBERT KOCH INSTITUT FUER HYGIENE UND INFJEKTIONSKRANKHEITENDirector: Harms, Professor Bruno

The Robert Koch Institut fuer Hygiene und Infektionskrankheiten is a loosely organized aggregate of various institutes in Berlin which banded together in 1945. It thus became a successor to the following organizations: Reichsgesundheitsamt (Office of Public Health); Reichsanstalt fuer Wasser- und Luftguete (Institute for Water and Air Quality); and the Reichsanstalt zur Bekämpfung der uebertragbaren Krankheiten (Robert Koch Institute for Combating of Infectious Diseases). Financial support comes from the Magistrat (City Council) of Berlin, although attempts are being made to obtain funds from the federal government in Bonn. From what I saw at the Koch Institute, I was not overly impressed by the programs in progress, although the staff includes several good medical bacteriologists and immunologists.

I did not meet Professor Bruno Harms (born 1890), President of this institute. He is violently disliked by a staff member of his whom I know personally and who considers him reactionary and completely incompetent. Apparently Professor Harms came entirely from the field of public health administration and has done scientifically nothing that would command respect. From 1945-46, Harms was Vice-President of the German Central Administration for Public Health Affairs in the Soviet Zone. Since 1946, he has held positions in West Berlin.

Professor Henneberg, Georg, heads the Division for Research on Viruses and Vaccines. During the last few years he has been very much occupied with practical problems, such as the testing of antibiotics, vaccines and sera. He has lately occupied himself with the development of resistance that certain organisms develop to antibiotics. In the virus field, he has been studying the question of whether hyaluronidase influences the infectivity of the influenza virus, also serological procedures for the diagnosis of the influenza virus. Professor Henneberg is a delightful young man (born about 1909), a fascinating raconteur and a capable scientist. He is the son of the well-known fermentation microbiologist who taught at Kiel University. His mother was of Jewish ancestry which caused him difficulty

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECURITY INFORMATION~~

(b)(3)

- 3 -

in following a teaching career. For several years therefore, he worked at the Schering Company in Berlin. It is psychologically interesting to note how thoroughly Henneberg identifies himself with Germany in spite of the hardships that he must have suffered. He is as vehemently pro-German as he is anti-totalitarian. He believes in democracy but is a romantic traditionalist to whom the word "antique" almost invariably means "venerable" regardless of whether "antiquated" may at times be a better synonym for it. Yet, Henneberg is a man with a conscience. He and his wife make an enjoyable couple. He is now editor-in-chief of the Zentralblatt fuer Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene I. Originale, which, like many other German scientific publications, are printed in the East Zone (by Arbeitsgemeinschaft medizinischer Verlage G.m.b.H. and Gustav Fischer in Jena).

Raettig, Dr Hansjuergen, a member of the division for Research on Viruses and Vaccines, comes from the field of public health and is working on the reproduction of bacterial viruses. Also in Henneberg's group are Gilless, Dr KE, and Henry, Dr Wolfgang Jack, who recently spent some time in the US meeting investigators working on bacteriophage.

The Division of Infectious Diseases is headed by Boecker, Professor Eduard, who has done a great deal of classical work on the serological classification of Salmonella. This division concerns itself with typhoid fever, paratyphoid fever, dysentery, tuberculosis and rabies. I believe it is also in charge of testing various disinfectants. Herrman, Dr Roland is working on the diagnosis of tuberculosis by serological means.

The Division of Smallpox and Parasitology is under the direction of Ginns, Professor Heinrich A (born 1883). He has done research on encephalitis, non-spore-forming anaerobic organisms, focal infections, dental caries and spirilla in the mouth.

The Serology and Diagnosis Division is headed by Blumenthal, Professor Georg, (born 1888). Since 1947, he has held a professorship at the Humboldt University which is located in the Soviet sector of Berlin. I do not know whether he still holds that appointment. He is an immunologist who has been working on dysentery, anaphylaxis, serological diagnosis of TB, syphilis and most recently on the Rh factor. Hackenthal, Dr H, is doing some interesting work jointly with Bierkowski, Miss E, on the identification of streptococci by differential media.

The other divisions of the institute are Water and Air Hygiene, Physiology and Pharmacology, Veterinary Medicine, General Hygiene. These are geographically located elsewhere.

4. GENETICS DEPARTMENT, BERLIN-BUCH

Director: Lueers, Dr Herbert

The genetics department of Berlin-Buch was formerly headed by Timofeeff-Ressowsky. It is now a part of the Institut fuer Medizin und Biologie der Deutschen Akademie der Wissenschaften and is directed by Lueers, Dr Herbert.

Lueers is a young (born 1910) geneticist who has published papers on the comparative genetics of various Drosophila species and on the genetics of disease-producing organisms. He has recently done work on the effects of photodynamic action.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 4 -

5. INSTITUT FUER MIKROMORPHOLOGIE, BERLIN-DAHLEMDirector: Professor Ruska, Helmut

The Institut fuer Mikromorphologie in Berlin-Dahlem, is a good department, staffed by competent and imaginative investigators.

Its former director, Professor Helmut Ruska (born 1906), is a first-class biologist, who pioneered in adapting the electron microscope to the needs of biological research. This development went hand in hand with the work of his older brother Ernst (born 1906) who participated actively in the engineering and physical research that went into the building of the Siemens microscope. Helmut's earlier work has dealt with viruses and general ultrastructure.

More recently, his collaborators, Bringmann, Dr Gottfried, Helmcke, Johann-Gerhard, and Richter, H (head of the Microbiology Division - Biologische Zentralanstalt fuer Land - und Forstwirtschaft - in Berlin-Dahlem and also of the Biologische Bundesanstalt fuer Land - und Forstwirtschaft in Braunschweig), have continued his tradition and have done very interesting work on the diphtheria bacillus, Bacillus polymyxa and blue-green algae. Their architectural visualization of diatoms constitutes fantastically beautiful research.

BOHN6. HYGIENE-INSTITUT OF THE RHEINISCHE FRIEDRICH-WILHELMS UNIVERSITYDirector: Eyer, Professor Hermann

In August 1951, the Hygiene-Institut of the Rheinische Friedrich-Wilhelms University in Bonn moved from an old, run-down building to the new campus of the medical school, located on Venus Mountain and is now housed in spacious and modern quarters.

Professor Hermann Eyer (born 1906) is Director of the Institute and, in contrast to most medical German bacteriologists, holds a PhD in chemistry, as well as an MD. His leadership has been lively and shows much initiative. His background is indeed unusual. Before coming to Bonn in 1946, he taught at Erlangen and Berlin but also had long affiliations (also in peace-time) with the German Army as a sanitary officer. In this capacity, he had excellent facilities to work in his specialties which are virus infections and typhus fever. During World War II, he headed the Typhus Fever Research Institute in Cracow and, for that reason, is said to be on the Polish War Criminals List. He has also worked on the chemistry of insulin. He has been an editor of the Archiv. f. Baederwesen.

Also present at my meeting with Eyer were two bacteriologists, Hunger, Dr Gerd and Weigner, Kurt, who represented Chemie Gruenenthal G.m.b.H. which is located at Stolber/Rheinland. Both are young (born about 1910-15) and eager to learn about US work in the fields of antibiotics. Hunger is doing pharmacological work, while Weigner is interested in the production of antibiotics. Both gave high praise to Dr Mueckler, their research director, whom they wanted me to meet. Apparently Mueckler started their whole penicillin production set-up by his own initiative without outside technical help. The company has now six 10,000-liter tanks producing penicillin. Weigner was born in Prague and was one of Bernhauer's, Professor Konrad, students there. Weigner speaks Czech perfectly and thinks of Prague with nostalgia. At the end of World War II, he was made to leave Czechoslovakia because of his German nationality. Hunger was quite outspokenly critical of US practices during and after World War II. He was in a US POW camp and does not remember it too fondly. Weigner's attitude, on the other hand, was much more cordial and fairly objective.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 5 -

Also present at the meeting were Schulemann, Professor Werner, head of the pharmacology department and Stille, Dr Bernd, a young microbiologist who holds a research appointment at the Department of Plant Pathology of the University of Bonn.

Piekarski, Professor Gerhard, is well known for his work on bacterial nuclear structures, investigations (some of which were in collaboration with Helmut Raska) which gave impetus to the recent emphasis on "nuclei" in bacteria. Piekarski is young (born 1910) and primarily a parasitologist. From 1942-43, he was a member of the Reichsgesundheitsamt in Berlin (Public Health Office) and he has been on the staff of the University of Bonn since 1943. In addition to research in bacterial cytology, he has worked on atabrine resistance of malaria parasites, trypanflavin resistance trypanosomes, and most recently on toxoplasmosis in man. Also on the staff are Loeschner, Dr Hans, Seeliger, Dr Heinz, Terhaag, Dr Ludwig, Linzenmaier, Dr Gostz, Posthofen, Dr Heinz and Halbeisen, Dr Theo, none of whom I met.

7. PHYSIOLOGISCH CHEMISCHES INSTITUT OF THE UNIVERSITY OF BONN

Director: Dirscherl, Professor Wilhelm

From a physical point of view, the Physiologisch Chemisches Institut of the University of Bonn is one of the most impressive university laboratories that I have seen in Germany. It is well equipped (five Warburg apparatuses, polarograph, beautiful balances - needs Beckman apparatus), has a new attractive animal house and should be ready for high productivity.

The Director, Professor Wilhelm Dirscherl, is an active, cordial man who looks much younger than he actually is (born 1900). He was a staff member at the Universities of Heidelberg and Frankfurt before joining the University of Bonn in 1946 as associate professor. He has been head of the department since 1946. He has done recognized work on enzymes, alkaloids, insulin and steroids; his main interest lies in the mechanism of action of sex hormones. He indicated that he avoided membership in the Nazi Party as long as he could but, in order to be given an assistant professorship at the University of Frankfurt, he became a physician with the Hitler Youth Movement.

Of the younger men on the staff, the following should be mentioned: Traut, Dr Hans, Bergmeyer, Dr Hans-Ulrich, Weingarten, Dr Friedrich-Wilhelm, and Veltin, Dr Alexander. Dr Bergmeyer has published an interesting series of papers, jointly with Professor Dirscherl, on a useful polarographic method whereby oxygen and lactic acid can be conveniently determined.

8. PHARMAKOLOGISCHES INSTITUT OF THE UNIVERSITY OF BONN

Director: Schulemann, Professor Werner

The Pharmakologisches Institut of the University of Bonn is a new, beautifully equipped department that specializes on chemotherapy, electrophysiology, industrial toxicology, cancer and organic synthetic chemistry. This institute, which consists of one large impressive remodeled villa and a completely new building, was purchased and I believe also equipped for 400 thousand marks.

The Director, Professor Werner Schulemann, has been associated with the University of Bonn since 1937 but held no academic post after World War II while he was being denazified. Because of his industrial connection, I do not think that he suffered financially very greatly during that period. In any case he did not express any resentment toward the US. His interests lie mainly in the chemotherapy of malaria.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 6 -

Work in electrophysiology is being done at the Institute by Zipf, Professor Hans-Friedrich, and industrial toxicology by Gross, Professor Eberhard. Additional members of the department are Friebel, Dr Hans, Keller, Dr Herbert, and Reuter, Dr Getrud.

9. CHEMISCHES INSTITUT OF THE UNIVERSITY OF BONN

Director: Helferich, Professor Burckhardt

Professor Burckhardt Helferich, who is director of the Chemisches Institut of the University of Bonn, is a well-known carbohydrate and enzyme chemist. He is a suave, knowledgeable man who commands respect. The end of World War II saw him as head of the Chemistry Department at the University of Leipzig; he remained there until 1930. Our discussion confined itself mainly to a heat-resistant amylase isolated in a US laboratory and the chemistry of streptomycin.

Professor Helferich's most recent papers have been on emulsin, maltose-hydrolysing enzymes, isosalicin and its hydrolysis, potato phosphatase and inhibition of this phosphatase by phosphate and arsenate ions. With the work on potato phosphatase, Professor Helferich had the assistance of Stetter, Dr Hermann.

10. INSTITUT FUER PFLANZENKRANKHEITEN OF THE UNIVERSITY OF BONN

Director: Braun, Professor Hans

The Institut fuer Pflanzenkrankheiten of the University of Bonn has as its director Professor Hans Braun. Stille, Dr Bernd, holds a research appointment in the department and just recently gave his first lecture as assistant professor, an occasion that in Germany is accompanied by a considerable ceremony. He is one of the few people I met during my stay whom I believe to be completely moral, honest and appalled by the horror of the Nazi regime.

Dr Stille was born about 1914 and studied under Professor August Rippel-Baldes of the Institut fuer Mikrobiologie at the Georg-August University in Goettingen. He used to work at the Reichsforschungsanstalt fuer Lebensmittelfrischhaltung (Research Institute for Preservation of Foods) in Karlsruhe. While there, he worked on the keeping quality of potatoes at high temperatures and high relative humidity, on the killing of microorganisms by cold, germination of spores as function of temperature and relative humidity and the effect of ultraviolet radiation on the growth of bacteria on meat. Sometime during World War II, he served as navy officer, continuing research on the preservation of foods. By the end of World War II, he was a POW in a US camp (incidentally, the same one in which Professor Schermer, Siegund, Director of the Tieraerztliches Institut of Goettingen, was interned) and, after release, joined the University of Bonn. He is being quite seriously considered for an appointment at the University of Tuebingen.

In this laboratory, I also met another Goettingen PhD, namely Swart-Fuechtbauer, Dr H, who was working on the resistance of certain bacteria to radiations. She seemed like an alert, impressive young woman and was very much interested in her scientific career although she was married.

Another microbiologist at Bonn who used to be a member of this department is Winter, Professor Arrien Gerhard (born 1910), a plant pathologist and soil microbiologist. Dr Winter has published on nitrogen fixation by blue-green algae; a new method of determining the growth of fungi in undisturbed soils; the effect of soil structure on the infection of wheat with Ophiobolus graminis; ecological relationships between Ophiobolus and other organisms; the significance of microorganisms near roots in the resistance of such roots against plant diseases; and symbiotic relationships between microorganisms in the soil and rhizosphere. I believe that Dr Winter is going to open a private laboratory.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 7 -

11. TIERARZTLICHES INSTITUT OF THE UNIVERSITY OF BONNActing Head: Mueller, Professor Richard

I was not very much impressed by the Tieraerztliches Institut of the University of Bonn. In August 1951, it was mainly interested in nutrition physiology. The only work on microbiology is on intestinal synthesis. The laboratories are fairly primitive but are provided with good balances and a Geiger-Mueller counting circuit for work that von Eriksen, Dr Lothar, planned. Dr Eriksen received his doctor's degree at the Institute of Technology at Breslau from which he fled in 1947.

The acting head of the Institute was Professor Richard Mueller in August 1951. The future research direction of this institute is uncertain, and will be determined by the interests of the new chairman who is still to be selected.

BRAUNSCHWEIG12. INSTITUT FUER BAKTERIOLOGIE UND SEROLOGIE BIOLOGISCHE BUNDESANSTALT FUER LAND- UND FORSTWIRTSCHAFT, BRAUNSCHWEIGDirector: Stapp, Dr Carl

The laboratories of the Institut fuer Bakteriologie und Serologie Biologische Bundesanstalt fuer Land- und Forstwirtschaft in Braunschweig are in temporary buildings but are fairly well equipped for microbiological work. In quality of personnel and philosophy of research, this institute is similar to many USDA laboratories.

The director, Dr Carl Stapp, is approaching retirement age but is still one of the best-known and most influential German general microbiologists. He is competent and productive. With him are Bortels, Dr Hermann (born 1902), Bercks, Dr Rudolf, and Bartels, Dr Ruprecht. Of these, Dr Bortels is best-known for some seemingly fantastic studies on the influence of atmospheric conditions on micro-organisms. Dr Freter, Rudolf, a young assistant in Dr Stapp's laboratory, is working on the effect of plant hormones on micro-organisms. Dr Stapp spoke kindly of him and regrets that Freter will soon leave him to go to the US.

The following are some of the projects that receive attention at the Institute: (a) inoculation of seeds with Azotobacter (Stapp); (b) effect of insecticides on the soil flora (Stapp); (c) effect of atmospheric conditions on the decomposition of cellulose (Bortels); (d) factors affecting virulence of Phytophthora tumefaciens (Stapp); (e) resistance of German potato varieties to Bacterium phytophthorum (Stapp); (f) effect of atmospheric conditions on Phytophthora tabaci (Bortels); (g) serological method for demonstrating infection of potatoes by X-virus (Stapp and Bartels); (h) effect of age on the resistance to the X-virus (Bercks).

13. BIOLOGISCHE BUNDESANSTALT FUER LAND- UND FORSTWIRTSCHAFT (FEDERAL BIOLOGICAL EXPERIMENT STATION FOR AGRICULTURE AND FORESTRY), BRAUNSCHWEIGDirector: Richter, Professor Harald

The direction of the Biologische Bundesanstalt fuer Land- und Forstwirtschaft in Braunschweig (Federal Biological Experiment Station for Agriculture and Forestry) has been handed over by Gassner, Professor Gustav (born 1881), old plant physiologist and pathologist also at the Technische Hochschule Carolo Wilhelmina in Braunschweig, to Professor Harald Richter, a young (born 1902) mycologist and plant pathologist.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~



(b)(3)

- 8 -

Professor Richter is also head of the microbiology division (Biologische Zentralanstalt fuer Land- und Forstwirtschaft) in Berlin-Dahlem. To handle both positions, he must travel every week between Berlin and Braunschweig, thus necessarily passing through the East Zone. He is a man of gentle manners and seems competent.

Among some of the institutes of the Bundesanstalt dealing with microbiology and etomology are the following:

- a. Institut fuer physiologische Botanik (at Braunschweig): Gassner, Professor Gustav (until recently head), Hassebrauk, Dr Kurt.
- b. Institut fuer Resistenzpruefung (at Braunschweig): Rabien, Dr Herbert (director), Noll, Dr Alfred.
- c. Institut fuer Getreide- Oelfrucht- und Gemuesebau (at Kiel-Kitzeberg): Speyer, Dr Walter, Pape, Dr Heinrich, Brockmann, Dr Hans, Frey, Dr Walter, Buhl, Dr Claus.
- d. Institut fuer Obst- und Gemuesebau (at Heidelberg): Thiem, Dr Hugo (director), Singer, Dr Getrud, Hochapfel, Dr Heinz, Duspiva, Professor Franz, Ehrenhardt, Dr Hans - does some research on insect control.
- e. Institut fuer Backfruchtbau (at Muenster): Goffart, Dr Hans (director), Heiling, Dr Alfred, Steudel, Dr Werner.
- f. Institut fuer Gruenlandfragen (at Oldenburg): Maercks, Dr Hans, Richter, Dr Wolfram.
- g. Institut fuer Kartoffelkaeferforschung und- bekaempfung (at Darmstadt): Klein, Dr Ferdinand, Langenbuch, Richard, Kueth, Dr Karlheinz.

CELLE14. INSTITUT FUER VIRUSFORSCHUNG IN CELLE

Director: Koehler, Dr Erich

The Institut fuer Virusforschung in Cella deals mainly with potato diseases caused by viruses and, though in temporary quarters, is quite well equipped for that type of work.

The Director, Dr Erich Koehler (born 1889), seemed well versed in the field of plant pathology and virus infections. He has spent most of his scientific career in governmental laboratories. He has a son studying botany, whom he wishes to send to the US.

Bode, Dr Otto, Quantz, Dr Ludwig, Hauschild, Dr Irmgard and Voelk, Dr Joseph are employed as scientists in the Institute.

DARMSTADT15. INSTITUT FUER KARTOFFELKAEFERFORSCHUNG UND- BEKAEMPfung IN DER TECHNISCHE HOCHSCHULE, DARMSTADT

Director: Klein, Dr Ferdinand

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 9 -

ERLANGEN16. HYGIENISCH-BAKTERIOLOGISCHES INSTITUT OF THE FRIEDRICH ALEXANDER UNIVERSITY, ERLANGENDirector: Knorr, Professor Maximilian

Microbiology does not thrive well in Erlangen. In fact, I left the Hygienisch-bakteriologisches Institut of the Friedrich Alexander University highly depressed and with the impression that, in Erlangen particularly, German higher education has reached a depressing low. Until very recently (to judge from photographs I was shown), this department was in a frightful physical condition. There has been some improvement and some of the laboratories have been renovated and fairly adequately equipped. Library facilities, though, are in a sad state; since 1930, not even German literature has come in. The annual departmental budget (exclusive of salaries) is 25 hundred marks which is, of course, much too little to keep a department going in sound condition. Additional governmental funds are now coming in for research on public health standards for sherbet, mineral water. Notwithstanding the poor financial condition of the department, 25 thousand marks were requested recently from the Notgemeinschaft der Deutschen Wissenschaft for the purchase of an ultracentrifuge. Realizing the institute director's present main interest in water and sewage bacteriology, I inquired quite pointedly for what particular projects at hand such an expensive instrument was needed and, as anticipated, no reasonable explanation was offered. To top it all, the assistant to the director confided in me that the instrument he really would want to buy is an electron microscope, since he enjoys photography so much.

Professor Maximilian Knorr, Director of the Institute, (born 1895), has been at Erlangen since 1950, where he received a chair of bacteriology after a period of denazification, which resulted in his removal from Wuerzburg. Professor Knorr was Chief Sanitary Officer of the German Third Air Fleet during World War II and, according to the comments made by personnel under his command, he was a far from popular officer. His pomposity and arrogance were hard to take even by Germans. His appointment at Erlangen is supposed to have been brought about through the political connections of his wife, whose father was a well-known Bavarian general.

Knorr's assistant is Borneff, Dr Joachim. He has done work on the effect of urethane on antitoxin fermentation very recently.

17. PEDIATRICS DEPARTMENT, ERLANGENDirector: Adam, Professor Alfred

Professor Alfred Adam (born 1888) is head of the Pediatrics Department in Erlangen. He is doing a considerable amount of research on diarrhea in babies and related bacteriological problems.

Professor Adam took an active anti-Nazi stand very early in the Hitler era. He held the chair of pediatrics at the Government Academy for Practical Medicine at Danzig from 1934-36 when he was removed because of his anti-Nazi activities. He kept on practicing in Danzig until the end of World War II after which he was given the choice of headships in Erlangen or Hamburg. He accepted the appointment in Erlangen, a decision that he now regrets, after having become aware how reactionary and Nazi many of his colleagues still are. I am confident that Adam is trustworthy and pro-US. His son, Hans, who has studied in the US, is now attending medical school in Heidelberg.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 10 -

18. STAATLICHE BAKTERIOLOGISCHE UNTERSUCHUNGSANSTALT AT THE UNIVERSITY OF ERLANGENDirector: Lentze, Professor Friedrich-August

The Staatliche Bakteriologische Untersuchungsanstalt at the University of Erlangen is a poorly equipped public health laboratory.

Professor Lentze (born 1900) used to be acting head of the bacteriology department at Erlangen. He has done work on actinomycoses and intestinal worms.

19. BOTANISCHES INSTITUT OF THE UNIVERSITY OF ERLANGENDirector: Schwemmle, Professor Julius

The Botanisches Institut of the University of Erlangen is poorly equipped and has very poor library facilities. Although not an outstanding institute, it is fairly well equipped for the interesting work on selective fertilization which is the main project of the Institute Director, Professor Julius Schwemmle (born 1894). Eight PhD candidates are working with him on various phases of the work; three others are working with Ruhland, Professor Wilhelm (born 1878) on water economy in plants.

Professor Julius Schwemmle is a cytogeneticist who has been at Erlangen since 1930 after stays at Tuebingen and Berlin.

Professor Wilhelm Ruhland, a famous plant physiologist, is an honorary professor at Erlangen. He began his academic career in Berlin and taught at Tuebingen, Halle. In 1922, he became chairman of the Botany Department at the University of Leipzig. After World War II, he fled from the University of Leipzig. As of August 1951, he is living in a castle at Unterdeufstetten ueber Crailsheim and makes occasional visits to Erlangen to consult with his graduate students. On such occasions, he eats and sleeps in his office. Professor Ruhland has done very interesting work on permeability, physical chemistry of tissues and cells and metabolism. He was one of the first to make early observations on the hydrogen bacteria.

Haustein, Dr E and Messrs Habryka, K and Feschel, D, pharmacists, are engaged as assistants.

20. CHEMISTRY DEPARTMENT, ERLANGEN

Waldschmidt-Leitz, Professor Emil (born 1894) is an outstanding protein and enzyme chemist and holds an honorary professorship in the chemistry department of the University of Erlangen. He lives in Munich and comes to Erlangen for occasional lectures. Professor Waldschmidt-Leitz was a professor at the German Institute of Technology at Prague until 1945 when he was made to leave Czechoslovakia.

FRANKFURT21. PAUL-EHRlich-InstItut, StAatliche AnStalt fuer Experimentelle Therapie; Georg-Speyer-Haus (Chemotherapeutische Forschungsanstalt); Ferdinand-Blum-InstItut, FrankfurtDirector: Prigge, Professor Richard

My general impression of the institutes, Paul-Ehrlich-Institut, Staatliche Anstalt fuer Experimentelle Therapie; Georg-Speyer-Haus (Chemotherapeutische Forschungsanstalt); Ferdinand-Blum-Institut in Frankfurt is that they are both physically and intellectually mediocre. Although the physical damage is being repaired and equipment undoubtedly will become better with time, I am not too confident that the intellectual climate will become much more favorable.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 11 -

Actually, considering the good reputation that the Paul Ehrlich Institute enjoys among German bacteriologists, I was very much disappointed by my visit. The excuse that the Institute, as a government laboratory, has to devote a good portion of its program to routine testing of vaccines, antisera, and certain drugs, is weak, because even the "pure research" aspects of the institute seem prosaic and regimented. It is difficult for me to comprehend how a country, whose scientists bemoan the dearth of research funds, can afford to waste as many competent investigators as are being wasted in these laboratories.

I hope that I am not too hasty in thinking that the over-all organization of the institute is not too flattering a reflection of its director, Professor Dr Richard Prigge, who has held this position since 1949. The method that seemed satisfactory for Dr Ehrlich, namely the systematic testing of potential chemotherapeutics for their effectiveness, is still used. With this I have no particular quarrel; such a search may eventually lead to the discovery of important new drugs, as it has in the past. However, little of Ehrlich's vision and pioneering spirit lingers on.

Spiegelmann, Dr Willy, is Dr Prigge's first assistant. Since July 1951, Dr Spiegelmann has shifted positions and is now employed in a blood bank, doing research in immunology. Dr Spiegelmann is a young (born about 1919) MD and endowed with a fair share of enthusiasm, but not of unusually impressive intellect.

Spiegelmann introduced me to Kroneberg, Dr Guenther, a young pharmacologist, who is working on the pharmacology of the Flexner endotoxin. Study of this toxin is a pet project of Dr Prigge and is made with material prepared at the Marburg sub-station of the Paul Ehrlich Institut from water extracts of dried cells. Dr Kroneberg took his MD and held an assistant professorship at the University of Rostock, where his wife's family lives. He was a student of Professor Holtz, Peter, a competent pharmacologist and biochemist. Dr Kroneberg keeps in touch not only with his former teacher but also with his parents and parents-in-law in the East Zone. He is a level-headed, likable fellow, with seemingly good scientific ability.

I was also fairly well impressed with Bockmueller, Dr Wilhelm, and Siegert, Dr Rudolf, who used to be at the University of Wuerzburg, but now heads the chemistry laboratory at the Paul Ehrlich Institute. He synthesizes a good many of the compounds tried there. As of July 1951, he was interested in the chemotherapeutic effects (mainly against tuberculosis) of long-chain fatty acids. A new drug against tuberculosis is still one of the principal goals of the Institute.

Dr Rudolf Siegert, who also impressed me fairly well, is a virologist, also originally from Wuerzburg. His interests are in typhus fever, Q-fever and neurotropic viruses. He has concerned himself lately with the encephalitic symptoms that sometimes follow vaccination against smallpox and has demonstrated, at least to his satisfaction, that the vaccine itself can, under circumstances, bring about encephalitis. I had the impression that Siegert knows what he is doing.

Freund, Willy, a laboratory technician in his early sixties, is testing salvarsan and making elementary analyses. He is enthusiastic about the US, partly, no doubt, because his sister has lived in New York for about 30 years but probably more so because his daughter married a US citizen and has moved to the US. Freund has been at the institute for many years and showed me a collection of Ehrlich's original letters, which he rescued from the cultural enthusiasm of Nazi vandals who tried to burn them.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)


- 12 -

22. MAX-PLANCK INSTITUT FUER BIOPHYSIK, FRANKFURTDirector: Rajewsky, Professor BorisAssociate Director: Muth, Dr Hermann

The laboratory of the Max-Planck Institut fuer Biophysik at the University of Frankfurt is well equipped. Among other items, there are available two Siemens electron microscopes, an X-ray machine (built by Heuser, Dr Otto) which eventually is to give one million roentgens per minute (as of July 1951, the output was 60-80 thousand), a Warburg apparatus in which the damage of ultrasonic vibration on living tissues is evaluated by respiration experiments, two fine ultraviolet machines and a Beckman spectrophotometer. However, in relation to the equipment and personnel available, the institute is producing relatively little original research.

The director of the institute is Professor Boris Rajewsky, born in Tschigirin in 1893. He has published widely in the fields of radiation biology. He is held in low regard, however, by several colleagues in the US who knew him well in Frankfurt and are not too impressed by his professional accomplishments and even less by his political reliability, as evidenced by his behaviour during the Nazi regime. Professor Rajewsky is serving as consultant to the HICOG Scientific Research Division and is held in fairly high esteem by that group. He was, in July 1951, still President of the University of Frankfurt. He also was too busy with administrative details to receive visitors.

Dr Hermann Muth, Associate Director of the Institute, was born in 1915. He is interested in radioactivity (neutron protection, radiations from radium, dosimetry) and high voltage installations for medical purposes. If I am not mistaken, he functions as business manager of the institute.

Hug, Dr Otto  is a very charming man, born about 1914. He took his MD at the University of Berlin and also held a residency in pathology. During World War II, Dr Hug served in the medical corps and was a Soviet prisoner for four years. In prison camp, he studied Russian with the objective of escaping. In spite of this knowledge, his escape proved unsuccessful. He eventually was released because of poor health. Probably because of his lengthy army service, Dr Hug is starting his active career as researcher rather late but he has a great deal of enthusiasm to make up for his handicap. He is choosing an academic career in preference to clinical work in the hospital of his father. In July 1951, he was doing post-doctorate work in biophysics, his eyes directed toward the relationship between the electronic pattern of certain compounds and their biological activity.

(b)(1)
(b)(3)

Among the personnel I met at the Max-Planck Institute in Frankfurt were the following: Reinholtz, Dr, a woman scientist working on the influence of temperature on the biological effects of X-rays; Hartmut, Dr, a high-frequency physicist of impressive fluency and familiarity with his subject; Burkhart, Dr, one of Liesegang's students, with interests in the biological effects of gaseous ions; Lippert, Dr Werner, a PhD from Frankfurt University, who was doing some very interesting work on the electron microscopy of trout sperm, an investigation that was to serve as visual supplement to the chemical data obtained by Felix, Professor Kurt, of the Institut fuer Vegetative Physiologie at Frankfurt University.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 13 -


23. HYGIENISCHES INSTITUT DER STADT UND UNIVERSITAET, FRANKFURTDirector: Schlossberger, Professor Hans

At the Hygienisches Institut der Stadt in the University of Frankfurt, I found the teaching and research facilities rather poor and opportunities for research limited. Many of the departmental activities center around routine testing and diagnosis.

I visited a new animal house that, typical of German circumstances, has not very adequate provisions for temperature control.

Professor Hans Schlossberger, director of the institute, was in Switzerland at the time of my visit. He (born 1897) once taught at the University of Jena. Moreover, he has been editor, or member of the editorial board, of a number of scientific journals (Zentralblatt fuer Immunitaetsforschung, Zentralblatt fuer Hygiene, Zentralblatt fuer Bakteriologie and Medizinische Monatsschrift Ergebnisse der Hygiene). His interests lie in the fields of immunity and allergy, especially in leptospiral infections which, at the moment, are receiving astonishingly much attention in Germany. Professor Schlossberger has been at the University of Frankfurt since 1946.

His assistant, Schmidt, Dr Bernhard, has been an associate professor since 1948. He was born in Magdeburg in 1906 and, before joining the staff of the University of Frankfurt in 1946, held affiliations with the Universities of Goettingen and Berlin. In July 1951, he was doing hospital work.

Brandis, Dr Hennig  is a courteous young man (born about 1916), somewhat shy and retiring, who is probably quite competent in the diagnostic aspects of bacteriology. Aside from a discussion on his interest in Salmonella and bacteriophage typing, however, my visit offered little stimulation. I also met Dr Hausmann, Hans, a young (born about 1916) virologist, but our conversation was too brief to allow much comment.

(b)(1)
(b)(3)24. INSTITUT FUER VEGETATIVE PHYSIOLOGIE, UNIVERSITY OF FRANKFURTDirector: Felix, Professor Kurt

The Institut fuer Vegetative Physiologie of the University of Frankfurt is regarded by many German biochemists as one of Germany's best departments of physiological chemistry. By US standards, it could be rated only as average. Most of the work centers around the main interest of the Institute's director, Dr Kurt Felix - protein chemistry. It is rather characteristic of German universities that the direction toward which a department's investigations move is determined by the inclinations of its head. For instance, Fendl, Dr Ilse, is working on the separation of amino acids from yeast; Roka, Dr Ladislaus, originally from Hungary, on prothrombin; Rauen, Dr HM, on the transformation of pteroyl glutamic acids by liver homogenates; Stamm, Dr Walter, on the chemistry of clupein and xanthopterin; Mohr, Dr, on the nucleic acids of trout sperm (trout sperm apparently contains only desoxyribonucleic acid and protamine). (The cytological work that accompanies Dr Mohr's study was done by Dr Werner Lippert at the Institut fuer Biophysik in one of the relatively rare instances of interdepartmental cooperation.) Zahn, Dr Rudolf K, and Langendorf, Dr Heinz, are working on the separation of proteins by ultracentrifugation and other methods. As far as equipment is concerned, the department has not fared too badly; an ultracentrifuge, electrophoresis apparatus and flame spectrophotometers are available. War damage of the buildings, however, was quite severe.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 14 -

During my visit in July 1951, I was well impressed by Dr Felix's wide understanding of biochemistry. Although he is not a great biochemist, he is certainly a well-versed one. This became especially apparent to me during a lecture which he gave on the "Biochemistry of the Liver" at the national biochemistry meeting at Mainz, 29-31 Aug 51. He presented an excellent integration of our present knowledge on that subject. By holding one of the more recognized chairs of biochemistry in Germany, Professor Felix seems to wield a considerable amount of influence among his colleagues. During 1950-51, he was president of the Society for Physiological Chemistry. He was born in 1888 and is not, therefore, too far from retirement.

Among the younger men, Doctors Rudolf K Zahn and Ladislaus Roka seem impressive. Dr Roka presented an excellent paper at the biochemistry meeting at Mainz. Dr Zahn complained about the lack of good refrigeration facilities to do good physical work with protein fractions. He may well have been spoiled by the facilities at Harvard University where he studied as a Rockefeller Fellow. In any case, there is little doubt that his ambition to work on the physical chemistry of proteins is being somewhat frustrated in Frankfurt. To some extent this may be due to lack of facilities but, even more so, I would venture a guess, to the fact that Professor Felix's interest lies in the chemistry and physiology of proteins rather than in their physical properties.

GEISENHEIM AM RHEIN25. HESSISCHE LEHR- UND FORSCHUNGSANSTALT FUER WEIN-, OBST UND GARTENBAU,
GEISENHEIM AM RHEINDirector: Schanderl, Professor Hugo

I have never met Professor Hugo Schanderl who directs the Botany Department of the Hessische Lehr- und Forschungsanstalt fuer Wein-, Obst und Gartenbau in Geisenheim am Rhein, but he was mentioned to me by several German scientists, including Kuehlwein, Dr Hans, of the Botanisches Institut in the Technische Hochschule Fredericiana in Karlsruhe. Professor Schanderl is a student of yeasts and a fanatic proponent of polymorphism. Because of his persistent reports on that subject, considered by several to be the result of sloppy technique, he is not too well thought of by his colleagues.

GIESSEN26. BOTANISCHES INSTITUT, JUSTUS LIEBIG HOCHSCHULE, GIessenDirector: von Denffer, Professor DietrichFormer Head: Kuester, Professor Ernst

Professor Ernst Kuester (born 1884) is former head of the Botanisches Institut, Justus Liebig Hochschule in Giessen. He is a well-known cellular physiologist and cytologist and a delightful philosophical person. I attended an early morning lecture by him in the Amerika-Haus rather than in a university lecture room because of lack of facilities, and his fine dramatic performance was well worth my while. Our conversation was essentially non-scientific. He was the only one during my three-months' visit who, on hearing that I was a bacteriologist, exclaimed, "Oh, an expert in biological warfare. There was another one around a while ago." I explained that my interests lay in the field of microbial physiology and biochemistry and we dropped the subject. His book "Die Pflanzenzelle" was just published (1951) by Gustav Fischer in Jena. Professor Kuester is still editor of the Zeitschrift fuer wissenschaftliche Mikroskopie und fuer mikroskopische Technik.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 15 -

27. MAX-PLANCK-INSTITUT FUER HIRNFORSCHUNG, JUSTUS LIEBIG HOCHSCHULE, GIESSENDirector: Spatz, Professor HugoAssociate Director: Hallervorden, Professor Julius

The Max-Planck-Institut fuer Hirnforschung was situated in Berlin-Buch until 1944. It is now at the Justus Liebig Hochschule in Giessen. Professor Dr Hugo Spatz heads the division of anatomy. Professor Dr Julius Hallervorden heads the division of pathology. The division of pathology has a fine slide collection, but otherwise relatively poor facilities.

Professor Spatz was not in the laboratory when I called because he had undergone, just shortly before my visit, a gall bladder operation in June 1951. Professor Hallervorden believes, without having actual experimental proof, that multiple sclerosis is a virus infection.

28. VETERINAERHYGIENISCHES UND TIERSEUCHEN-INSTITUT JUSTUS LIEBIG-HOCHSCHULE, GIESSENDirector: Roots, Professor Elmar

The facilities of the Veterinaerhygienisches und Tierseuchen-Institut Justus Liebig-Hochschule in Giessen are still poor but its director, Professor Elmar Roots, has progressive plans to build up his department. The laboratory has high potentiality of doing interesting work in animal diseases. The execution of some of these plans will probably be slowed down by Roots' illness (he has had tuberculosis and is still very weak). An ultracentrifuge was bought in 1943 but it is still not unpacked because a suitable place to house it has not yet been found.

Professor Roots was born in Estonia in 1900 and still speaks German with a distinct accent. He has been in Giessen since 1947. He is very eager to develop a strong virus section and laboratories for that purpose are being built.

In the administration of the department, Roots is helped by Haupt, Professor Herbert, who is mainly interested in immunology and milk hygiene. He considers biological warfare ridiculous. There are only two agents (rinderpest and psittacosis), Haupt and Roots believe, which could be of importance.

About 40 DVM candidates do their thesis work in this department. Facilities for that many research students are strikingly inadequate.

Among others on the staff are Geissler, Dr Heinrich (recently working on the biological effects of hexachlorocyclohexane), Venske, Dr Wolfgang, Vietze, Dr Hans Ulrich (working on leptospiral infections in dogs), Mueller, Dr Doris (immunological reaction in Bang's disease). Demnitz, Dr Albert, former director of the Behringwerke in Marburg/Lahn, has been honorary professor at Giessen since 1950. Kemkes, Professor Berthold is the head of the Department of Hygiene at Giessen. Kemkes (born about 1901) was, until recently, an associate professor at the University of Frankfurt. He has dealt, at one time or another, with the social aspects of tuberculosis, prevention of tuberculosis, chemotherapy of pneumococcal infections, differentiation of capsulated bacteria, public health aspects of milk bacteriology and lactic acid and pathogenic intestinal bacteria. I did not have an opportunity to see Professor Kemkes.

Professor Roots is especially eager to invite Schaefer, Dr Werner, who is one of the most outstanding young virologists in Germany, to join his staff. Professor Roots confided that he could offer Schaefer only about 350 marks per month, an amount which is only half the sum that Schaefer is earning at Tuebingen. Three hundred and fifty marks [approximately US\$90] is hardly a living wage for a married man.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~(b)(1)
(b)(3)

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 16 -

29. PHYSIOLOGISCHE-CHEMISCHES INSTITUT, JUSTUS LIEBIG HOCHSCHULE, GIESSENDirector: Feulgen, Professor Robert

Professor Robert Feulgen (born 1884), who is Director of the Physiologische-Chemisches Institut, Justus Liebig Hochschule in Giessen, achieved world-wide fame by working out a reaction for the staining of nucleic acids (the so-called Feulgen reaction). His other main contribution was on the chemistry of acetalphosphatides. He has been in Giessen since 1919 and is now ready for retirement. Professor Feulgen reminisced with me about his research on the Feulgen reaction, indicating that he never felt qualified enough to develop the applications of that stain. He is extremely appreciative of the US help he is getting which includes the gift of a Beckman spectrophotometer. In the summer 1951, Professor Feulgen had one technician and his research was more of a gadgeteering rather than a basic nature.

The only other man of professorial rank in the Physiologische-Chemisches Institut is Behrens, Professor M. He is a competent researcher whose strength lies in instrumentation rather than ideas. He has made the fractionation of cellular components his life work. He has not published widely but has done ingenious research. His separation method is based on the specific gravity of the components and the suspending solution. He used lyophilization as a method of disintegrating cells. Behrens was openly bitter over occupation policies. Apparently he was out of a job for five years while he was being denazified. He was a member of the party and was dismissed at the end of World War II which he had spent (partly at least) as sanitary officer. He told me that he offered testimonials that he, while acting as sanitary officer, let his truck be used by Jewish refugees in Rumania to transport their belongings and that he did not denounce one of his men who spoke out against the Fuehrer, but the denazification board did not regard this evidence as overly convincing. He considers the denazification procedure a big joke, inasmuch as it was easy to obtain witnesses who would give testimony to some invented anti-Nazi deed. He also deplored the fact that Germany was never allowed to reach the height of its cultural development. There is no question that he has no love for the US. Behrens expressed the desire for an ultracentrifuge (for a department that has a monthly budget of 800 marks to cover everything but salaries, a rather extravagant wish) and was astonished by my question as to why he did not plan to use the one of the Veterinary Department. First, he did not realize that the department had one; secondly, the Veterinary Department was situated too far for him (a five-to-ten minute walk).

GOETTINGEN30. INSTITUT FUER MIKROBIOLOGIE IN THE GEORG-AUGUST UNIVERSITAET, GOETTINGENDirector: Rippel-Baldes, Professor August


The Institut fuer Mikrobiologie in the Georg-August Universitaet in Goettingen is one of the few institutes in Germany which, although not doing world-shaking research, is doing steady work in general microbiology. In fact, it is the only academic, non-medical bacteriology group in Germany that was dignified by departmental status. Physically the department is not well off. The laboratories are old; the equipment is inadequate; and the library facilities poor. There, as almost everywhere on my visits, I noticed an extravagant use of space. Professor Rippel-Baldes showed me proudly his culture collection, where the test tubes were lying, one layer deep, on generously spaced shelves. Only the wall space was used, and uneconomically at that, and the center unused, so that he would have a good-looking culture collection. Without being facetious, I should guess that his collection would have fitted quite adequately in a few baskets.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 17 -

Professor-Rippel Baldes, the director  is rather hard of hearing. Professor Rippel assumed his wife's name, to give him the hyphenated Rippel-Baldes, not because of snobbish reasons but to avoid confusion with Ripple, Karl (born 1904), who was director of the Department for Technical Mycology from 1943-45 at the Institute of Technology, Weihenstephan/Freising and now heads a seed certification laboratory at the same place. Professor Rippel-Baldes (born 1888) is a microbiologist who arrived through plant physiology. His academic career brought him to Breslau as well as Goettingen. He and his students have published widely in the field of soil and general microbiology. He is now editor of the Archiv. f. Mikrobiologie.

(b)(1)

(b)(3)

Also on the staff are Meyer, Professor Rudolf (born 1900), who claims to be quite busy with teaching. He has worked, off and on, on the decomposition of cellulose and ecology of soil organisms. Although interested in research, he seems fairly unproductive in spite of his considerable intellectual curiosity. His wife, Pietschman-Meyer, Dr K, seems more alert than her husband and he seems to depend on her to a considerable extent. Mrs Meyer has been interested for some time in the motility of slime bacteria, a very fascinating subject, and has worked competently in that field.

I also met Plotho, Dr OV, a dried-up woman of about fifty, whose function in the department I could not fully ascertain. She seems to serve as some sort of assistant and has been interested for some years in the formation of humus by bacteria and in pigments and antibiotics from actinomycetes.

Stolp, Dr Heinz seems to be Professor Rippel's first assistant and turned out to be an amiable young chap who has his doubts about staying in the academic field. He seems frustrated by lack of equipment and funds and is toying with the idea of going into industry.

Martin, Hans-Herbert, is studying fat-forming yeasts (Candida); Speyer, Eckhart, the geographic distribution of Cytophaga and the morphology and physiology of this organism. Voss, Eberhart is interested in the effect of salts on the morphology of cocci. Kaufmann, Miss Wilfried concerns herself with the energy economy of yeasts and lactic acid bacteria. Findeisen (fru) deals with the formation of slime by Azotobacter chroococcum, and Klaus (fru), with the effect of various factors on antibiosis.

31. HYGIENISCHES INSTITUT OF THE GEORG-AUGUST UNIVERSITAET, GOETTINGEN

Director: Schuetz, Professor Franz

Microbiology thrives fairly well at the Georg-August University in Goettingen. The work in the Hygienisches Institut is basic and good. The department has a home-made electrophoresis apparatus and a preparative ultracentrifuge that, as far as I could see, was not being used. This is a well-knit and active department.

Its head, Professor Franz Schuetz, does not scientifically seem to be very outstanding. Until recently, for about five years, he was out of circulation awaiting denazification. During that time, he held a laboratory job at Luebeck (Staedtische Krankenanstalten). When Buergers, Professor Josef, retired as head of the department, Schuetz was appointed to his post. Professor Schuetz' work has dealt with gas gangrene organisms (Clostridium perfringens).

An active bacterial cytology group has developed in Goettingen around the nucleus formed by Preuner, Dr Rudolf, Winkler, Dr Anneliese and Jensen, Joerg, all of whom are assistant professors. Their work is aided by phase contrast microscopy and electron microscopy performed by Koenig, Dr Hans of the Department of Physics. Dr Jensen is also interested in the process of spore germination. Prittwitz, Dr Jutta von, is a free-lancer working with Dr Preuner.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 18 -

A Woratz, Hermann, is also an assistant in the department, but we did not discuss his work. Dr Winkler is the oldest of this young group (born about 1908). Her interest in bacterial cytology is of fairly recent origin. Previously she worked on immunology with Westphal and on the neutralization of sulfa drugs by local anaesthetics. I was well impressed by this group. I met Dr Jensen several times socially and found him and his wife to be sincere, clear-thinking individuals, who, in my judgment, are very trustworthy. Jensen, incidentally, is the son of Professor Paul Jensen, who used to head the physiology department at Goettingen.

The public health laboratory, associated with the Hygienisches Institut, is headed by Kroeger, Dr Erich whom I did not meet. Dr Anneliese Winkler apparently is directly in charge of the work. Schubert, Professor Hans was employed as assistant there. He used to be at the University of Koenigsberg in East Prussia. He has published on disinfection, death of bacteria and chemotherapy. I believe he died at 45 during the summer 1951.

A privately supported laboratory for investigations on blood types is headed by Dahr, Professor Peter (born 1906). Although I did not meet Professor Dahr, I did hear him speak at the bacteriology meeting in September 1951 in Mainz. He seems to speak authoritatively on blood types. Dr Budin apparently is associated with him.

32. ORGANISCH-CHEMISCHES INSTITUT OF THE GEORG-AUGUST UNIVERSITAET, GOETTINGEN

Director: Brockmann, Professor Hans

Some of the laboratories at the Organisch-Chemisches Institut of the Georg-August University in Goettingen are beautiful and new. There are still a few left, however, that haven't changed much since the days of Woehler and Windaus. It is refreshing to consider how much basic work was accomplished in these exceedingly primitive laboratories.

Professor Hans Brockmann (born 1903), director of the Organisch-Chemisches Institut of the Georg-August University in Goettingen, and successor to the famous steroid chemist, Windaus, Adolf, is one of the few German organic chemists interested in the chemistry of microbial products. Although he did, like most students of Windaus, work on vitamin D in his early career, he has occupied himself during the last few years with antibiotics, like actinomycin C, rhodomycin, pikromycin, resistomycin and photodynamically active materials, such as hypericin, fargopyrin and chromatography. Before coming to Goettingen in 1945 he was professor of organic chemistry at the University of Posen (now East Zone). Since Professor Brockmann is interested in the organic chemistry of antibiotics, regardless of their therapeutic importance, he does not have to worry about the pharmacology of his products. Professor Brockmann deploras the present tendency of many scientists to think that they cannot do good research without expensive equipment. He still insists that his students use their ingenuity in building apparatus. For antibiotic work, he has a Craig apparatus and a 50-liter fermentation pilot tank built by Grubhofer, Mr Nikolaus, who is one of the assistants. This tank was not yet in use in July 1951. It is the only equipment I saw in a German university laboratory designed for large-scale production of micro-organisms or microbial products. From Posen, Brockmann brought with him Professor Lindenbein, Werner (born 1902), who is an agricultural botanist and cytogeneticist and is handling the microbiological aspects of Professor Brockmann's programs. Dr Lindenbein is supported by a grant from the Notgemeinschaft, an organization that is sponsoring research, at the rate of 350 marks per month. Schenck, Professor Guenther, is an associate professor in the department. Among the assistants are Weber, Dr Erhard, Koenig, Dr Hans Bodo, Finger, Mr Erich and Kluge, Mr Friedhelm.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 19 -

33. PHYSIOLOGISCH-CHEMISCHES INSTITUT OF THE GEORG-AUGUST UNIVERSITY IN GOETTINGENDirector: Deuticke, Professor Hans-Joachim

The Physiologisch-Chemisches Institut of the Georg-August University in Goettingen did not appear to be very productive in July 1951.

Professor Hans-Joachim Deuticke (born 1898) has been head of this department since 1946. He directed work during World War II on algal lipids. This was a joint project between his department and the botany department at Goettingen. In the past, his interests have been in the intermediate metabolism of carbohydrates and muscle physiology. He is cordial, charming, well versed in biochemistry (he is also one of the editors of Pflueger's Archiv. fuer die Gesamte Physiologie) and level-headed. The department seems to be in good hands.

One of Deuticke's assistants, Denfey, Dr Georg Bruno, went to the US in the spring 1951 on an ERP fellowship to do postdoctorate work at Yale University. Hollmann, Dr Siegfried (born 1914) is an assistant professor in the department.

34. BOTANISCHE ANSTALTEN OF THE GEORG-AUGUST UNIVERSITY IN GOETTINGENDirector: Harder, Professor Richard

Although my visit to the Botanische Anstalten of the Georg-August University in Goettingen was rather hurried, I was impressed by the quality of the institute. This is one of the most active botany departments that I saw in Germany and, in a sense, reflects the very active career of its congenial, paternalistic director, Professor Richard Harder. For microbiology, its importance lies also in the considerable attention that Professor Harder has given to the study of algae and fungi. This department participated in a project on the production of lipids by alga during World War II. This involved a rather primitive attempt in the mass culture of these organisms. (I may add that the collaboration between this department and the Department of Physiological Chemistry and the Department of Hygiene and Physics for electron microscopy are some of the relatively rare beginnings of team work in Germany.) The following are some of the problems under attack: effect of nitrogen source on synthesis of lipids, inhibitory and stimulatory relationships among basidiomycetes and mass culture of red algae.

Professor Harder (born 1888) came to Goettingen in 1932 via Wuerzburg, Tuebingen, and Stuttgart. He is a plant physiologist by training and has worked over the years on phototaxis of motile plant cells, photosynthesis, the function of the nucleus and cytoplasm, phycocyanin, pigmentation in flowers, mass culture of blue-green algae and photoperiodism. Professor Harder's influence on German botany is considerable, especially through his association as editor or member of the editorial board of the following journals: Planta (since 1947); Naturwissenschaften (since 1946); Biologisches Zentralblatt (since 1946); Archiv. fuer Mikrobiologie (since 1948).

Also on the staff are Schmitz, Dr Josef, and Grosse-Brauckmann, Gisbert. I also met Gaertner, Dr Alwin, one of Harder's assistants. He seemed to be an alert investigator.

The division dealing with taxonomical and geobotanical problems is headed by Firbas, Professor Franz (born 1902), who has been an associate professor at Goettingen since 1946 and whose interest lies in plant geography and plant ecology.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 20 -

35. TIERAERZTLICHES INSTITUT IN GOETTINGENDirector: Schermer, Professor Siegmund

The Tieraerztliches Institut in Goettingen has only meager facilities for diagnostic and research work and does not seem to be very actively engaged in research. An interesting pathological museum is available for teaching purposes and the institute also has excellent X-ray equipment with which animals can be conveniently X-rayed from any position.

Professor Siegmund Schermer (born 1896) has been at Goettingen since 1922 and has published on the inheritance of blood groups in mammals, infectious anemia in horses and deficiency diseases. He is on the editorial board of the Berliner Tieraerztliche Wochenschrift and the Archiv. fuer Wissenschaftliche und praktische Tierheilkunde. His attitude toward the US is colored partly by his pleasant memories of 1935, when he attended the International Congress for Veterinary Science in Ithaca, and partly by his "shocking" experiences in a POW camp in France. I inquired from other inmates about the conditions of the camp in which Professor Schermer spent four and a half months. Although none found life rosy there, none was as bitter about the "atrocities" committed by US citizens in this camp as Schermer was.

Peters, Dr Juergen is assistant in this institute.

36. MEDIZINISCHE FORSCHUNGSANSTALT DER MAX-PLANCK GESELLSCHAFT, GOETTINGENDirector: Thomas, Professor KarlAssociate Director: Koll, Professor Werner

The Medizinische Forschungsanstalt der Max-Planck Gesellschaft in Goettingen is provided for luxuriously and much more lavishly equipped than most university departments. Not only is the equipment excellent, but the library facilities for German circumstances superb. This institute has three divisions (biochemistry, physiology and pharmacology). Physically each division is situated on a separate floor. In spite of the fact that administratively these three units belong to the same department, each one has a magnificently equipped machine shop, with trained personnel. Looking at the label that many of these instruments carried, I found they were purchased from funds obtained from the High Commissioner McCloy (McCloy Spende 1950). The distribution of isotopes shipped from Harwell is handled through this institute.

Professor Karl Thomas, director (born 1883), is an unusually active and jovial bachelor and is very enthusiastic about his work on branched fatty acids. Thomas has a good reputation in German physiological chemistry and, for many years, held the chair in that field at the University of Leipzig. From 1946-49, he headed the department at the University of Erlangen. He has been in Goettingen since 1949. Professor Thomas has been one of the editors of the famous Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie since 1927. As far as I know, he was not a member of the party; he seems trustworthy.

With Thomas, work Weitzel, Dr Guenther (his right-hand man on fatty acid research), Fretzdorff, Dr Anna-Maria, Savelsberg, Dr Wolfgang, and Wojahn, Dr Jutta. Professor ~~Werner~~ Koll (born 1902), the associate director, is head of the pharmacology division. Before coming to Goettingen, he taught at Frankfurt, Danzig and Kiel.

Professor Thomas would very much like to see Lochner, Dr Wilhelm, whom he considers a promising young physiologist, come to the US on an exchange program.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 21 -

37. MEMBRANFILTERGESSELLSCHAFT, SATORIUSWERKE A.G., GOETTINGEN

My visit to the Membranfiltergesellschaft, Satoriuswerke A.G. in Goettingen was confined mainly to a discussion with Beling, Dr Adelaide, a bacteriologist who is developing the applicability of membrane filters in microbiology, and with Keese, Miss Gertrude, the business manager of the company. Miss Keese informed me that Schleich and Schuell will be the US agents for the Goettingen company and that they will handle orders for a literature review of research on membrane filters published by this company.

(Research on membrane filters has been very active in Germany, and I was astonished by the relatively wide base these filters have found.)

(b)(1)

(b)(3)

Dr Beling is Soviet and fled from Kiev, so she says, in 1943. Her deceased husband, Beling, Professor Demetrius, was an ichthyologist who studied the hydrobiology of the Dnieper and the Desna. He taught at Kiev, was in Posen from 1943-45 and, thereafter, at Freudenthal. Mrs Beling explained that she and her husband resented being mere machines and therefore fled the USSR.

38. WINKEL, R G.m.b.H. (ZEISS-WINKEL) OPTISCHE WERKE, GOETTINGEN

I visited the Winkel, R G.m.b.H. (Zeiss-Winkel) Optische Werke in Goettingen mainly because I had heard so many flattering comments on Michel, Dr Karl, a zoologist turned instrument designer, who is responsible for the development of new microscope equipment. Although I am in no position to evaluate his merits accurately, I was very much impressed by his unassuming manner and the beautiful equipment that he built. Among the more recent products of his ingenuity is a superb cinematographic set-up which will soon reach the German market.

Dr Michel is one of the several former employees of Zeiss at Jena (where he knew Hans Kneell, industrial microbiologist). He left the East Zone to come to the West to the newly organized company, Zeiss-Winkel.

HAMBURG39. HYGIENISCHES INSTITUT DER HANSASTADT, UNIVERSITY OF HAMBURG

Director: Harmsen, Professor Hans

My visit to the Hygienisches Institut der Hansastadt-Hamburg at the University of Hamburg served to remind me that favorable physical conditions alone do not guarantee high quality research. The emphasis of this institute is placed on the hobby of its director, Professor Dr Hans Harmsen, namely social hygiene. With few exceptions, the publications of this department are in this area.

Many of the topics are trivial and it is, therefore, not surprising that, in 1950 alone, the members and students of the department published 384 papers. Professor Harmsen (born 1899) at one time or another was editor of the following journals: Gesundheitsversorgung; Dienst am Leben; Archiv fuer Bevölkerungspolitik; Sexualethik und Familienkunde; Archiv fuer Bevölkerungswissenschaft und Bevölkerungspolitik. Recently he became editor of Stadtehygiene und Volksgesundheitsdienst. Over the years, he has dealt with such topics as population density, birth rate, prevention of tuberculosis, protective clothing, allergic reactions during trichinosis, serological reactions during malaria, treatment of diphtheria and the importance of corn in nutrition. He is not highly regarded by some of his colleagues at the University of Hamburg nor by some other bacteriologists in Germany.

(b)(1)

(b)(3)

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 22 -

Fuehner, Dr Fritz, an expert on leptospiral infections, is generally more highly respected. His group is said to maintain the greatest serological station on leptospiral infections in Germany and is engaged in work on Weil's disease, Leptospira canicola infections, and field fever.

I also met Meinecke, Dr Georg, who is studying morphological changes in yeasts grown on blood agar and the occurrence of micro-organisms in living tissues (symbiosis). Most sound German bacteriologists regard data on "symbiosis" with suspicion, inasmuch as the occurrence of micro-organisms within normal tissues of plants or animals can never be demonstrated by workers with careful technique. The present concensus is to regard such "symbiants" as contaminants. Among the more tangible accomplishments of Dr Meinecke is a magnetic stirring apparatus that allows him, he says, to cultivate micro-organisms more rapidly.

Winkle, Professor Stefan (born 1911 in Munkacs, Hungary) is still viewed by some of his German colleagues with suspicion. Dr Winkle began his academic career after World War II at the University of Jena where he rose rapidly from an assistant professorship (1945) to a full professorship in 1948. His researches at Hamburg, conducted mainly on the genus Proteus, have not been as spectacular as was his professional advancement in the East Zone. Rumors have it that he was an active Communist until he was requested to spy on his colleagues. This, he is said to maintain he refused to do, and he escaped to the West Zone. He became affiliated with the University of Hamburg in 1949.

Sonnenschein, Dean Curt, of the University of Wuerzburg advanced the view to me that Dr Winkle may have left the East Zone with the blessing of the Communists for the purpose of keeping an eye on science in the West Zone.

Also among the staff are the following: (a) Werner, Dozent Dr Hans (born 1898), a food chemist, who has published on the utilization of whale meat, spoilage of animal and plant fats and detection and determination of small amounts of high molecular weight materials. Until 1943, he taught at the University of Posen; (b) Muehlens, Dr Karl (born 1910) who has done research on tropical diseases, such as kala azar, venereal diseases such as gonorrhoea, and insecticides and parasiticides (ie, dichlorodiphenyltrichloromethylmethane); (c) Henschel, Dr Johannes, who recently published on the toxic effects of scillirosid on rats (Schaedlingsbekämpfung, pp 42, 94-96, 1950). His field is zoology, mainly comparative physiology.

40. PHYSIOLOGISCH-CHEMISCHES UNIVERSITAETSINSTITUT, UNIVERSITY OF HAMBURG

Director: Kuehnau, Professor Joachim

The Physiologisch-Chemisches Universitaetsinstitut, University of Hamburg, is one of the best-equipped, most compact departments for physiological chemistry in Western Germany in spite of the fact that it is relatively unknown in and outside Germany. The equipment includes an ultracentrifuge, electrophoresis apparatus, a Debye apparatus and fine library facilities.

Professor Joachim Kuehnau, who has been at Hamburg since 1941, has been head of the department since 1948. Before coming to Hamburg he taught at the University of Frankfurt as a member of the Department of Physiological Chemistry which he, contrary to my opinion, regards as one of Germany's best. Between 1931-40, he was a member of the staff at Breslau. Scientifically Professor Kuehnau is interested in vitamins and other problems of nutrition, a field in which to the best of my knowledge he does not shine. However, judging from his superb lecture on the function of the thyroid gland, given at a meeting of German physiological chemists, he must be an impressive teacher.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECURITY INFORMATION~~

(b)(3)

- 23 -

This Institute has on its young and enthusiastic staff one of the best young German biochemists, Buecher, Dr Theodor, who, as assistant professor, will undoubtedly aid immeasurably in building a strong department. The neatness of the department and the fact that a man of Buecher's caliber finds the intellectual climate favorable there are a tribute to the Institute's director. Dr Buecher (born 1921), is mainly interested in the purification of enzymes (especially those involved in carbohydrate metabolism) and the physical chemistry of enzymes in general. This interest was no doubt nurtured by Professor Otto Warburg of the University of Berlin, in whose laboratory Buecher worked for several years. He is an excellent instrumentalist and has designed several spectrophotometers, one (Photometer "Eppendorf") that is being manufactured and sold by the Elektromedizinische Werkstaette, G.m.b.H., Hamburg. His ultimate aim in methodology is to work out determinations for such compounds as alcohol that can be performed with the aid of enzymes and by relatively untrained personnel. Professor Warburg considers Buecher very capable but too much concerned with making money, a concern that Warburg considers unbecoming for a scientist. Apparently Buecher's business dealings, which supposedly include interests in a small chemical plant and the apparatus company already mentioned, constitute involvements beyond the call of his family needs. Although Warburg did not call Buecher a Nazi (and in conversation with me Buecher certainly adopted an anti-Nazi attitude), he did express disappointment and chagrin that Buecher used to listen to Hitler's speeches over the radio with undue enthusiasm.

Among the other young men in Kuehnau's department are: (a) Klingmueller, Dr Volker, who is working on the separation of peptides and proteins by paper electrophoresis (a method very popular in Germany, and developed by Wieland Grassmann and others); (b) Gaede, Dr Karl, who works on hormone chemistry, and (c) Bramstedt, Dr Fritz, who is doing amino acid analyses with micro-organisms.

41. INSTITUT FUER EXPERIMENTELLE PATHOLOGIE UND BALNEOLOGIE, UNIVERSITY OF HAMBURG

Director: Gollwitzer-Meier, Professor Dr Klothilde

The Institut fuer experimentelle Pathologie und Balneologie at the University of Hamburg is a small but impressive laboratory dealing with problems of circulation, a field in which its director, Professor Gollwitzer-Meier, is quite well-known.

Dr Gollwitzer-Meier was born in 1894 in Bavaria, took her MD at the University of Greifswald (East Zone) and was on the staff of the University of Frankfurt before joining the University of Hamburg, where she holds now the rank of Associate Professor. Her husband, Professor Kloetz, Christian, an internist with scientific interests in the effect of radiations on the acid-base equilibrium and heart diseases, is director of the Allgemeine Krankenhaus-Harburg of the University of Hamburg. Dr Kloetz was also born in 1894. Both are cultured individuals with discriminating tastes in the arts. Politically their opinions are moderate and quite cosmopolitan. Dr Gollwitzer-Meier was in the US in 1935 and lectured recently in the UK.

42. UNIVERSITAETS - FRAUENKLINIK UND POLIKLINIK (DEPARTMENT OF GYNECOLOGY), UNIVERSITY OF HAMBURG

Director: Schubert, Professor Gerhard

Professor Gerhard Schubert now heads the Universitaets - Frauenklinik und Poliklinik (Department of Gynecology) at the University of Hamburg. He is a young (born 1907), supposedly competent biophysicist. Before coming to Hamburg, he was at the University of Goettingen where he did research in the field of radiation biology and radiation therapy.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 24 -

43. UNIVERSITAETS-HAUTKLINIK UND POLIKLINIK (DEPARTMENT OF DERMATOLOGY), UNIVERSITY OF HAMBURGDirector: Kimmig, Professor Josef

Professor Josef Kimmig is head of the Universitaets-Hautklinik und Poliklinik (Department of Dermatology) at the University of Hamburg. He recently came from the University of Heidelberg and is well-known in the field of chemotherapy. He holds a PhD as well as MD and is unusually young (born 1909) to hold as responsible a position as he does.

He has published widely on sulfa drugs, paraminobenzoic acid, relation between chemical structure and chemotherapeutic effect and chemotherapy of venereal diseases. Colleagues at Heidelberg expressed themselves kindly about Dr Kimmig.

44. IMPFFANSTALT OF THE UNIVERSITY OF HAMBURGDirector: Lehmann, Professor Walther

The Impfanstalt of the University of Hamburg prepares smallpox vaccine for the city of Hamburg and is also responsible for the actual vaccinations. Some work is being conducted on the growth of the smallpox virus in chick embryos and on the survival of the smallpox virus under frozen conditions.

Professor Walther Lehmann, who is director, is a tottering gentleman, who looks more like 70 than the 58 he is. He is helped by one technician. He has spent some time in the US as a Rockefeller Foundation Fellow.

45. BERNHARD-NOCHT-INSTITUT FUER SCHIFFS- UND TROPENKRANKHEITEN, UNIVERSITY OF HAMBURGDirector: Nauck, Professor Ernst Georg

Several portions of the Bernhard-Nocht-Institut fuer Schiffs- und Tropenkrankheiten in the University of Hamburg were badly damaged in World War II and much is presently under repair. The annual budget, according to Professor Ernst Georg Nauck, Director, for the institute, and for the hospital associated with it, is 800 thousand marks. A fourth of this need is fulfilled from income derived from the hospital; the remainder, however, comes from the city of Hamburg and donations. Because of the international fame that this institute enjoys, the atmosphere always has been quite cosmopolitan. Attention is /as of the summer 1951/ being given to rickettsial and virus infections, such as Q-fever or those caused by members of the genus Bartonella. Efforts are being made to study the causative agents by modern methods and the laboratory is equipped with an electron microscope, Tiselius electrophoresis apparatus and ultracentrifuge.



Professor Ernst Georg Nauck, Director of the Institut, is one of the best medical bacteriologists in Germany. He is urbane, mundane, foresighted as an individual, competent as a scientist and talented as an administrator. He began his career at Berlin, spent the years 1924-27 in China (Wuchang, Shanghai, Peking), was, from 1927-29 in San Jose, Costa Rica, and has been at the Institute for Tropical Medicine since 1929, from 1943 (when he was 46) as director. His research over the years has dealt with anatomy, parasitology, tissue culture, tropical fungal infections, tropical hygiene, acclimatization, and viruses. In addition to acting as director of the institute, he also heads the division of virology, where he is assisted by Peters, Dr Dietrich, Wigand, Dr Reinhard, and several laboratory assistants.

(b)(1)
(b)(3)~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 25 -

The division of helminthology is headed by Vogel, Professor Johannes (born 1900) who has been teaching at the University of Hamburg since 1934. During the last few years, he has concerned himself with causative agents of certain tropical infections (*Schistosoma japonicum*, *Bilharzia japonica*). This division maintains an excellent collection of parasites as well as of intermediary hosts. Minning, Dr W, and Dinnik, Dr JA, are associates of Professor Vogel.

The division of protozoology consists of Westphal, Dr A, Reichenow, Professor Eduard (born 1883) (the former head) who has been a staff member of the University of Hamburg since 1921 (after having spent some time in Africa), and von Haller, Dr E. The division concentrates now on malaria, toxoplasmosis and changes in the serum albumen during infection.

The division of entomology is headed by Weyer, Professor Fritz (born 1904) who is a very enthusiastic researcher, with interest in the vectors for various rickettsial diseases, for instance Q-fever. Laven, Dr H, is also a member of the division.

The division of bacteriology and serology is under the direction of Lippelt, Professor Heinrich (born 1906) who is working on cold agglutination and serology of Q-fever. Caselitz, Dr FH is Lippelt's associate.

The division of veterinary medicine is led by Enigk, Professor Karl (born 1906) who has occupied himself over the years with diseases of fowl, horses and dogs.

46. STAATSIINSTITUT FUER ALLGEMEINE BOTANIK, UNIVERSITY OF HAMBURG

Director: Mevius, Professor Walter

The Staatsinstitut fuer Allgemeine Botanik at the University of Hamburg, although damaged, has the promise of becoming one of the more active institutes in Northern Germany. This will partly be due to the aggressiveness and purposefulness of its director, Professor Walter Mevius, who is determined to build a strong department. Although the department is not yet too well equipped, Warburg manometry is possible, and other apparatus will no doubt be forthcoming. Even now the botanical garden and the herbarium contain very fine collections.

Mevius is a plant physiologist but, to my knowledge, has not published very actively in the last few years. His main efforts have been in studies on plants as indicators of soil fertility and similar problems. Considering this, it is surprising that he deploras the fact that soil scientists are at times usurping the leadership in the field of non-medical microbiology. He would prefer to see it remain in the hands of botanists. Professor Mevius began his academic career at the University of Muenster and finally landed in Hamburg via Berlin and after a detour to Muenster. I was told that he held the presidency of the University of Muenster sometime during the Nazi regime which makes his political past uncertain. He is active (born 1893), urbane. One of Professor Mevius' ambitions is to build a strong microbiology division.

For that purpose, he brought in Engel, Professor Horst, whose interest over the past few years has been in the field of autotrophic bacteria, especially the nitrifying bacteria. His demeanor possibly reflects his frustrations over an interrupted and stunted academic career. After an assistant professorship at Muenster, he held an associate professorship at the Institute of Technology at Danzig until the end of World War II. He came to the University of Hamburg in 1948. In addition to work on nitrification, he has dealt with guttation in higher plants.

Young Walter Mevius is working for his PhD under Professor Engel's direction. We discussed the applicability of radioactive isotopes to his researches. Young Mevius has studied Hyphomicrobium, an odd filamentous organism requiring carbon dioxide. Mevius, Jr seems like an enthusiastic, bright chap who talked openly and easily.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 26 -

47. BIOCHEMISCHE ABTEILUNG, CHEMISCHES STAATSIKITUT, UNIVERSITY OF HAMBURGDirector: Tschesche, Professor Rudolf

The Biochemische Abteilung, Chemisches Staatsinstitut of the University of Hamburg is quite a bit out of Hamburg. It is pleasantly located in a villa but is very well equipped. Much good work could be accomplished there.

Its director, Professor Rudolf Tschesche, is cordial, intelligent and an able organic chemist. He is interested in heart poisons from plants, steroid poisons, pterids from micro-organisms and the mechanism of action of sulfa drugs. At the fall 1951 bacteriology meeting in Germany, he talked on the mechanism of action of antibiotics. His affiliation with the University of Hamburg is his first significant academic post inasmuch as the Nazis refused him permission to teach at German universities because of his "political unreliability" (his comment). He, therefore, spent the time while the Nazis were in power with the Schering Company in Berlin and began his academic career after World War II. Since he is one of the most capable of the younger organic chemists, he may be offered the headship of a department in the not too distant future.

Endres, Professor Gunther, Associate Professor of Chemistry at the University of Hamburg, has, over the years, shown interest in nitrogen fixation by bacteria, plant pigments, bactericidal effects and respiration or aerobic bacteria. He was born in 1905. As a possible commentary on a German scientific "isolationism", it should be remarked that Professor Tschesche did not once mention Professor Endres' existence to me, much less his work, in spite of his realization that I was interested in meeting microbiologists.

48. BUNDESSTAAT FUER FORST UND HOLZWIRTSCHAFT, UNIVERSITY OF HAMBURGDirector: Bavendamm, Professor Werner

Professor Werner Bavendamm, an Associate Professor at the University of Hamburg who in 1924 published a monograph on the colorless and red sulfur bacteria, now heads a division at the Bundesanstalt fuer Forst und Holzwirtschaft at Reinbeck near Hamburg. In that capacity he is mainly concerned, so I am told, by Professor Walter Mevius of the Staatsinstitut fuer Allgemeine Botanik at the University of Hamburg, with the deterioration of wood.

HANNOVER49. INSTITUT FUER FORSTBOTANIK UND TECHNISCHE MYKOLOGIE, HANNOVER-MUENDEDirector: Schmucker, Professor Theodor

The Institut fuer Forstbotanik und Technische Mykologie (School of Forestry of the University of Goettingen) at Hannover-Muende is a very unimpressive laboratory dealing with the taxonomy of certain fungi and their effect on the deterioration of woods. This laboratory has a fairly large collection of wood-destroying fungi.

The Director, Professor Theodor Schmucker (born 1894), is a friendly Bavarian who still enjoys speaking a folksy peasant dialect but, if he has accomplished much scientifically, I am unaware of it.

One of Professor Schmucker's assistants, Linnemann, Dr Germaine, is a mycologist with strong taxonomic leanings. She has published on members of the genus Mucor. Meyer, Dr Helmut is another assistant. Falck, Professor Richard, formerly with this department, spent much time in the USSR and is currently in the USSR.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 27 -

50. INSTITUT FUER MYKOLOGIE UND HOLZSCHUTZ, BIOLOGISCHE BUNDESANSTALT FUER LAND- UND FORSTWIRTSCHAFT, HANNOVER-MUENDEDirector: Zycha, Professor Herbert

The Institut fuer Mykologie und Holzschutz, Biologische Bundesanstalt fuer Land- und Forstwirtschaft at Hannover-Muende is an inadequately housed and poorly equipped government laboratory dealing with the deterioration of woods and its prevention.

Its director, Professor Herbert Zycha (born 1903), is a mycologist and plant pathologist who has been with the University of Goettingen since 1940 and an associate professor since 1949. He has published on deterioration of construction woods by fungi; mushroom culture; and birch diseases.

51. INSTITUT FUER ANGEWANDTE CHEMIE, BIOLOGISCHE BUNDESANSTALT FUER LAND- UND FORSTWIRTSCHAFT, HANNOVER-MUENDEDirector: Pfeil, Dr Erich

The main objectives of the work at the Institut fuer angewandte Chemie, Biologische Bundesanstalt fuer Land- und Forstwirtschaft in Hannover-Muende center around the chemical detection of virus infections in plants. It is a fairly compact, fairly well equipped laboratory dealing with the study of proteins by polarography, paper chromatography and paper electrophoresis. It is a member institute of the Biologische Bundesanstalt at Braunschweig which is now under the direction of Professor Harald Richter, a mycologist.

The director of the institute is Dr Erich Pfeil. An assistant, Kanngiesser, Dr Walter, elaborated a polarographic method by which various proteins can be distinguished. Apparently the proteins extracted from diseased plants differ polarographically from the proteins of normal specimens. The applicability of this method is still under investigation. Breyhan, Dr Theodor is also participating in this project. Another phase of the work attempts to answer whether any specific chemical may be responsible for the symptoms characteristic of various virus infections. Also therapy and ecology are receiving attention. Loeschke, Mr Volkmar, is another chemist working in this laboratory.

52. HYGIENISCHES UND BAKTERIOLOGISCHES INSTITUT, TIERAERZTLICHE HOCHSCHULE, HANNOVERDirector: Wagener, Professor Kurt

The Hygienisches und Bakteriologisches Institut of the Tieraerztliche Hochschule in Hannover is a well-equipped laboratory specializing on animal diseases. Its director is Professor Kurt Wagener (born 1898). Mitscherlich, Dr Eilhard, Wagener's first assistant, specializes in tropical medicine. He is a handsome, correct and matter-of-fact scientist. He served as veterinarian during World War II and spent some time in a Yugoslav prison camp. Because of his name, I wonder whether he is not related to Mitscherlich, Professor Eilhard Alfred (born 1884), the famous plant physiologist and soil scientist, who is professor emeritus of the University of Berlin and, to judge by his membership and posts in scientific societies, very much esteemed by the East Zone government. I discussed TB and leptospiral routine testing with Dr Mitscherlich. He believes in the US method of eradication of tuberculosis in our herds. Another problem receiving attention at the Institute deals with toxin-producing anaerobic organisms (Clostridium welchii type B which is involved in lamb dysentery) and toxin-antitoxin relationships. Studies on the flora of semen are also being conducted.

Also a member of the department is Harms, Professor Franz (born 1909) who is in charge of the routine diagnostic functions of the institute. He has been an associate professor since 1947.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 28 -

53. BOTANISCHES INSTITUT AT THE TIERAERZLICHE HOCHSCHULE, HANNOVERDirector: Simonis, Dr Wilhelm

The Botanisches Institut at the Tieraerzliche Hochschule in Hannover is a spic-and-span, newly built laboratory. Among some of the problems, other than photosynthesis, that are being studied there are dead-and-living stains (this is a continuation of the effort by Strugger, Professor Siegfried who headed this department before he went to the University of Muenster), the effect of potassium and sodium on water economy of plants and the need of diatoms for silica. The department is well equipped with a Warburg manometer, flame spectrophotometer, Geiger-Mueller counter circuit, fluorescence and research microscopes, good photographic equipment, etc. If the quality of the work approaches the quality of the laboratories, we can look forward to some interesting work from Hannover.

The director of the institute, Dr Wilhelm Simonis (born 1909), is a plant physiologist interested in photosynthesis as affected by the water content of soils and related problems. His assistant is Werk, Otto.

The work on blue-green algae is being conducted by Richter, Professor Oswald, a heel-clicking, friendly, elderly man who was born in 1878 in Prague. He spent all of his academic life at Prague, Brno and Vienna and speaks in waltz-time. His Blue Danube type of charm seems a little out of place in Hannover.

54. STAATLICHES MEDIZINISCHES UNTERSUCHUNGSAMT HANNOVER UND STAATLICHE IMPFANSTALT, HANNOVERDirector: Messerschmidt, Professor Theodor

The deplorable condition of the Staatliches Medizinisches Untersuchungsamt Hannover und staatliche Impfanstalt in Hannover (public health laboratory), which is housed in a private home, may be indicative of a somewhat happy-go-lucky attitude of its director, Professor Theodor Messerschmidt. His careful records of cases and sanitary conditions of each community under his jurisdiction, however, may belie my impression that this is one of the poorest laboratories I have seen in Germany.

Professor Messerschmidt himself, born 1886, strikes me as a bon-vivant with a twinkle to whom bacteriology is more of a sport than a bread-earning proposition. He certainly does not appear to be a keen research worker.

HEIDELBERG55. HYGIENISCHES INSTITUT OF THE RUPRECHT KARL UNIVERSITY, HEIDELBERGDirector: Habs, Professor Horst

The Hygienisches Institut of the Ruprecht Karl University in Heidelberg, though a member of an illustrious university, is not outstanding. The department has to do a large amount of routine diagnostic work and is not well equipped for specialized bacteriological problems. Animal houses are quite satisfactory.

Its director, Professor Horst Habs (born 1902), is a public health bacteriologist with experience in water and sewage bacteriology, who recently held a position in the Lueneburger Medizinisches Untersuchungsamt while he was being denazified.

Bingel, Professor Ferdinand (born 1906) has done relatively uninspiring work on scarlet fever, dysentery, virus meningitis and antigen-antibody relationships. Bader, Professor Ernst (born 1912) has done most of his research with salmonellae.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 29 -

56. INSTITUT FUER EXPERIMENTELLE KREBSFORSCHUNG OF THE RUPRECHT KARL UNIVERSITY, HEIDELBERGDirector: Lettre, Professor Hans

The Institut fuer experimentelle Krebsforschung of the Ruprecht Karl University in Heidelberg (Department of Oncology) concerns itself mainly with the synthesis of mitotic poisons and their application. The attack on the problem is frontal: a large number of potentially inhibitory materials are being tested against various cancerous cells usually in tissue culture. As a by-product of this search, a fund of knowledge is being accumulated on the nature and possible mechanisms of mitotic poisons. The laboratory seems well equipped for the work pursued. Set-ups for photomicrography and tissue culture work are adequate. There are also facilities for organic synthetic work.

The institute director, Professor Hans Lettre (born 1909) is highly regarded as an organic chemist. He is one of the editors of the Zeitschrift fuer Krebsforschung. He attended the International Chemistry Congress in New York in September 1951. Professor Lettre's assistant is Albrecht, Dr M (born about 1917).

Among some of Professor Lettre's co-workers in the last few years have been: Hoelscher, Dr Harald, Fritsch, Dr Werner, Porath, Dr Jerker, Mayer, Dr August, Pflanz, Dr Charlotte, Lettre, Dr Renate and Riemenschneider, Dr Werner.

57. MAX-PLANCK-INSTITUT FUER MEDIZINISCHE FORSCHUNG OF THE RUPRECHT KARL UNIVERSITY, HEIDELBERGDirector: Kuhn, Professor Richard

The Max-Planck-Institut fuer medizinische Forschung of the Ruprecht Karl University in Heidelberg is a first-class institute, with an excellent staff. In terms of working conditions and equipment, it is exquisitely provided. Among other pieces of equipment, there are two Beckman apparatuses, a cyclotron, columns for the isolation of heavy isotopes and an infrared spectrometer.

Professor Richard Kuhn (born 1900), the director of this institute, is a well-known organic chemist who achieved fame through his papers on the chemistry of natural products (enzymes, carotinoids, sex "hormones" in *Chlamydomonas* and vitamins). For this work he won a Nobel prize. In the work on sex hormones, he had the capable assistance of Moewus, Dr Franz (born 1908) who is, as of August 1951, at the Botany Department of the University of Sidney. In Kuhn's work on surface-active agents, he had Jerchel, Dr Dietrich (born 1913) as collaborator. Dr Jerchel studied tetrazolium salts which turned out to be useful indicators of biological activity. Dr Jerchel also holds a teaching appointment at Mainz and is eager to come to the US on an exchange appointment.

Other staff members include Bielig, Dr Hans-Joachim (born 1912), a capable biochemist whose research has dealt with the chemistry of natural pigments and most recently with the use of tetrazolium salts to indicate sites of metabolic activity in bacteria; Moeller, Dr EF (born about 1906), also a member of the institute. He is a man of unorthodox habits, but well regarded for his breadth of understanding of biochemical problems. He is studying the metabolism of Lactobacillus plantarum, antimetabolites and acetylcholine synthesis by bacteria. He also developed an apparatus that allows growth of uniformly active bacterial cultures, an accomplishment of which is quite proud. Also active are Quadbeck, Dr Guenther, Birkhofer and Ruelius, Dr Hans W. Professor Richard Kuhn now has a research set-up at the University of Pennsylvania which he is to visit a few months every year on a research appointment. His future intentions as to whether he will stay in Germany or come to the US are just as obscure as was his relationship to the Nazi regime. One of his men, Zilliken, Dr Friedrich, is already in Philadelphia, and another, Ruelius, Dr Hans W, was to immigrate to the US in the fall 1951.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 30 -

One of the assistants at the Institute is Cords, Mr Helmuth. I know him and his family well and believe them to be very trustworthy individuals. Mr Cords, who was a captain in the artillery in World War II, participated in the ill-fated putsch against Hitler on 20 Jul 44 and was arrested and imprisoned until the end of the war. After the war, he was sent, through arrangement by the armed forces, to the US where he took his MS in chemistry. He is now working for his PhD in Heidelberg and hopes to receive it by the spring of 1952 when he will immigrate to the US.

Mr Cords is working under the direction of Wieland, Professor Theodor (son of Professor Heinrich Wieland of Munich), an excellent protein chemist who is directing research at Heidelberg. Professor Wieland, as of August 1951, in addition to his Heidelberg position, is also associate professor and head of the laboratory for organic chemistry at Mainz. He was offered the headship of the Chemistry Department at Frankfurt in the summer 1951 and may have accepted the appointment by now. In young Wieland's recent work, of great interest are his paper electrophoretic method (an inexpensive way of separating proteins from their mixtures and indicating their purity) and his work on the chemistry of amanitin and phalloidin. Both are highly poisonous peptides produced by Amanita phalloides. Because of their low molecular weight, these materials are probably only slightly antigenic. This, together with their extreme toxicity, make them (especially amanitin) potential BW agents. In doing this work, young Wieland is merely continuing a family enterprise that began with papers by Wieland Sr, Lynen, and others in Munich.

HOECHST58. FARBWERKE HOECHST, HOECHST

Farbwerke Hoechst, until the end of World War II, a member of the I G Farben complex, is now under US supervision. The laboratories that I had the opportunity of seeing are well equipped.

Lindner, Dr Fritz, is head of the biochemistry division. The four sister teams (synthetic organic, pharmacology, chemotherapy, and parasitology) which constitute the unit on pharmaceutical research are headed by Ehrhart, Professor Gustav.

Dr Lindner, a former student of Fischer, Hans, at the Institute of Technology in Munich, seems quite well informed and trained, although he probably arrived at his present position more by perseverance and seniority than by brilliance. Dr Lindner's political record, which he discussed freely, is interesting. He is one of the very few individuals whom I met who feels somewhat responsible and guilty over the role that Germany played after 1932. Soon after Hitler came to power Dr Lindner joined the storm troopers (SA) mainly because he was anti-Semitic. In 1935, he transferred to the transportation corps (National Sozialistisches Kraftfahrer Korps) and, in 1937, he joined the Nazi Party (NSDAP). By that time, he says, he had become quite unenthusiastic about Nazism and thereafter became quite inactive. After World War II, he was fired because of his party membership but was rehabilitated in 1949. Between these dates, he had to move from his various dwellings four times at very short notice. In spite of his various experiences which most Germans would view with unconcealed resentment, he shows little bitterness toward the Allies. Germans committed so many sins, he reasons, that some of the annoyances that he and others had to experience seem relatively insignificant by comparison. Dr Lindner seems much too unsophisticated to be a very successful hypocrite. I believe he regrets his mistakes. Particularly interesting to me was the large-scale lyophilization set-up that Dr Lindner developed several years ago.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

- 31 -

In Dr Lindner's laboratory, I met Stauff, Dr Joachim, a physical chemist working on ACTH and related problems (involving electrophoresis, paper chromatography, Warburg manometry). Dr Stauff also holds an assistant professorship (Dozentur) at the nearby University of Frankfurt. Dietzel, Dr Ernst, a biochemist formerly at Goettingen, and Wallhaeuser, Dr Karl-Heinz, a microbiologist who took his PhD under Professor Rippel-Baldes at the University of Goettingen, make up a team at Hoechst which is seeking new antibiotics by pretty much the same methods as are being used in the US. Farbwerke Hoechst has only recently entered the antibiotic field, and has now a modern penicillin plant, which was patterned after Merck US designs and is being run under a license from Merck.

The only fermentation process other than that for biosynthesis of penicillin used at Hoechst is for the production of mold enzymes. Aspergillus oryzae is grown in large, oval, covered metal dishes; the mycelium is then ground to give the Hoechst preparation "Festal" that contains lipases, hemicellulases, amylases and proteinases and is supposed to ameliorate certain digestive disturbances.

Kreuzfeld, Dr, Koernlein, Dr Max, and Bock, Mr (MS), who were formerly students of Professor Andreas Lembke at the University of Kiel, are now fermentation microbiologists at the penicillin plant of the Farbwerke Hoechst. Koernlein collaborated recently with Lembke on a paper dealing with the detoxification of botulism toxin and the toxin of Salmonella enteritides.

Wagner, Professor Oskar, head of the Division of Parasitology, showed me through his well-equipped laboratories. Dr Wagner enjoys microphotography, an interest reflected in the type of equipment his laboratory possesses. His research background is in helminthology and tropical medicine; his publications in the early thirties dealt with amoebic dysentery. Dr Wagner also holds a teaching appointment at the Justus-Liebig Hochschule at Giessen.

I also spent considerable time with Fussgaenger, Dr IR, who heads the Division of Chemotherapy. Dr Fussgaenger is quite cynical and not overly sympathetic to occupation policies. He is remarkably sensitive about the fact that Kogon, Eugen accused him in the first edition of his authoritative and horrifying book about German concentration camps (Der SS Staat) of participating in typhus fever experiments with inmates of concentration camps. Dr Fussgaenger pleads ignorance. (In this connection, Dr Lautachlaeger, former German director of the Farbwerke Hoechst, should be mentioned. He was accused at the Nuernberg trials of condoning experiments with humans. After spending two years in jail, he was acquitted. He is now at Elberfeld and thought to be very bitter about his experiences.)

Stephan, Dr [fnu], who heads the bacteriological production unit, showed me his laboratories that are being used for the production of vaccines (Micrococcus pyrogenes var. aureus; Salmonella typhosa, Haemophilus pertussis), tuberculin, and diphtheria antitoxin. Although incubation facilities are good, no facilities for submerged growth are available. The old animal houses, still in use, are those used by Koch and Behring and leave much to be desired. New animal houses were being built but even these will not have air-conditioning units, a not uncommon US convenience.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 32 -

KARLSRUHE59. BOTANISCHES INSTITUT OF THE TECHNISCHE HOCHSCHULE FREDERICIANA, KARLSRUHEDirector: Weber, Professor Ulrich

The Botanisches Institut of the Technische Hochschule Fredericiana in Karlsruhe is not an impressive department from any point of view. Its director, Professor Ulrich Weber, is a relatively unimportant botanist interested in pharmacognosy.

On the Institute staff is Kuehlwein, Dr Hans (born 1911), a young microbiologist. Although I don't think that Kuehlwein's background in quantitative microbiology is very good, he is an enthusiastic student of the myxobacteria and has made interesting contributions to their taxonomy. Myxobacteria and the metabolism of a wood-destroying fungus is receiving attention in this laboratory.

60. BUNDESANSTALT FUER LEBENSMITTELFRISSHALTUNG UND KONSERVIERUNG OF THE TECHNISCHE HOCHSCHULE FREDERICIANA, KARLSRUHEDirector: Plank, Professor Rudolf

The purpose of the Bundesanstalt fuer Lebensmittelfrischhaltung und Konservierung of the Technische Hochschule Fredericiana in Karlsruhe is to do research on food preservation, and a team of engineers, biologists and physicists are assembled for this purpose. Conditions are very crowded, but the building is being enlarged so there will be more comfortable quarters for the staff. The institute is fairly well equipped but technically, it seems to me, much less advanced than equivalent food laboratories in the US.

The director of the institute is Professor Rudolf Plank (born about 1886). He is a world-wise man and received me with utmost warmth and cordiality. He has an excellent reputation as an engineer and taught at the University of Texas in 1947. He has recently again been invited to lecture at Texas and the University of Illinois but cannot accept the invitation because of kidney troubles. Apparently Professor Plank kept his hands quite clean during the Nazi regime and became president of the Institute of Technology. In addition to directing the Bundesanstalt fuer Lebensmittelfrischhaltung und Konservierung of the Technische Hochschule Fredericiana in Karlsruhe, he is also Dean of the School of Mechanical Engineering and also directs the Maschinen-Laboratorium mit Heiz- und Kraftwerk and the Kaelteteknisches Institut.

The associate director of the laboratory, Kuprianoff, Professor Johann, is a refrigeration engineer. He was born in Russia in 1904. Two other Soviet emigres are employed in the Institute, namely Wolodkewitsch, Dr Nikolaus (born about 1901), a physicist who designs some of the gadgets used for the physical testing of foods; and Maltschewsky, Mrs Nadeschda (born about 1901), a microbiologist who is doing work on Azotobacter. She has an almost mystical belief in morphological transformation of this organism. Mrs Maltschewsky fled from the USSR sometime during World War II and has been working in the institute since then. She abstracts Soviet journals for the Biologische Berichte. Also on the staff are Gutschmidt, Johannes, Burke, Heinz, and Montfort, Lothar, all engineers - Wolf, Dr Johannes, a plant chemist; Riedel, Dr Leonard, a physical chemist; and Winter, Dr Erwin, a chemist.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 33 -

KIEL61. BAKTERIOLOGISCHES INSTITUT DER FORSCHUNGSANSTALT FUER MILCHWIRTSCHAFT, KIEL;
INSTITUT FUER VIRUSFORSCHUNG UND EXPERIMENTELLE MEDIZIN, SIELEBECK BEI EUTINDirector: Lembke, Professor Andreas

The Bakteriologisches Institut der Forschungsanstalt fuer Milchwirtschaft in Kiel is a federal-supported institute. The Institut fuer Virusforschung und Experimentelle Medizin, Sielbeck bei Eutin, is a private institute having some federal support. Both are directed by Professor Andreas Lembke. These institutes are actually separate from the University of Kiel although many of their staff and Lembke, himself, lecture at the University.

The long-term objective of both institutes is to determine the changes that such parasites as the brucellae and the TB organisms bring about in the enzymatic make-up of the host. This goal is being approached in Hollywoodian grandeur by a staff that consists of approximately sixty professional and non-professional members.

Lembke, who was born in 1911, is somewhat of a Hutchinson in the German scientific world. He became director of the dairy institute in 1938, when he was only 27, and developed the Sielbeck Institute mainly by his own initiative. I have faith in his ability. Lembke is a forceful man and apparently can deal with German officialdom to his own advantage, as is evidenced by the excellence of the equipment and facilities housed in his institutes. Under the present German circumstances, this can only mean that Lembke is a very persuasive and persistent visitor to Bonn or that he has considerable pull. However, Lembke is not only dynamic but also sensitive to beauty as expressed in the arts and music, or imaginative scientific experimentation. As a scientist, he is supercritical of others', as well as of his own, work, and is painfully aware of how meager the German contributions to the field of microbiology have been in the last few years. He is especially impressed by the work of Mudd, Dr Stuart (University of Pennsylvania), Huddleson, Dr Forest (Michigan State College) and Braun, Dr Werner (Camp Detrick).

Among his colleagues at the dairy institute, Professor Lembke has the following: Dierchen, Dr Wolf, who is working on bacterial morphology with emphasis on the existence of a nucleus and the occurrence of mitosis (an excellent Siemens electron microscope is available for this work). Krueger-Thiemer, Dr Eckerhart, is studying metabolism and staining reactions; among the more specific problems in which he is interested is the effect of blood fractions on brucellae. Kaufmann, Dr [fnu] is dealing with the changes in blood serum and milk during infections by TB and brucellae. Lueck, Dr H, investigates the affinity with which the substrate-enzyme complex is held together in the case of several systems. Special attention is paid to the extent to which antibiotics alter this affinity. Lagoni, Dr [fnu] is in charge of testing pasteurization apparatus and disinfection methods which are applicable to the dairy industry. On the more theoretical side, Lagoni concerns himself with reducing enzymes in the hope of determining what enzymatic reactions govern the initial steps involved in cellular division. Meeves, Dr Karl-Heinz, Mertinger and Dr Hecker deal with the pure culture collection. Delitsch, Dr Heinrich (as well as Dr Meeves) has some teaching duties as assistant professor at the University of Kiel. (Characteristic of Lembke's educational philosophy was his comment that Meeves was his least capable assistant and, therefore, in charge of the teaching.) Christophersen, Dr, is studying various problems of bacterial metabolism and adaptation.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 34 -

At Sielbeck, the following are associated with Professor Lembke: Kynaat, /fnu/ (MS in physics) who is doing biophysical work (electrophoresis, polarography, energy measurements); Wasserfall, Dr /fnu/, a mathematician; von Rappart, Dr /fnu/ who is studying the morphology of brucellae; Lembke, Dr Ewalt, who is doing research on animal nutrition and pharmacology. (Ewalt Lembke is Andreas' brother. He first took a doctorate in music and then became interested in science; his musical ability benefits the whole staff, inasmuch as the institute, a remodeled villa, houses, in addition to scientific equipment, a small but fine Orphan.); Arndt, Dr G, who is experimenting with large animals; Frahm, Dr H, a physicist who is serving as Lembke's right-hand man at Sielbeck; and Schmidt, Miss H, who is studying the effect of the TB organism on enzymes of guinea pig lungs.

In the Luebeck branch laboratory, which I did not get to visit, Bellinger, Dr H, and Dramatzky, /fnu/ work on animal therapy, tuberculosis and brucellosis in cattle, statistical analyses of epidemiological data. (A recent paper by Bellinger, written with Lembke and Dr Max Koernlein of the Farbwerke Hoechst, dealt with the detoxification of botulism toxin and the toxin of Salmonella enteritidis.)

Considering the large amount of manpower expended in these laboratories, the output so far has been disappointingly small. It seems incongruous for Lembke, who possesses intuition and imagination, to be so confident that mass production of scientific data will give him answers to his problems. In my many discussions with him, I became aware of the fact that, in his scientific thinking, he considers himself the general who sets the strategy and his staff the good little soldiers, who may know how to use their arms, perhaps even know who the enemy is, but who are unaware of tactics and strategy. Subconsciously he may be trying to imitate the US system of team work but he is unaware that the most effective team work is accomplished by specialists who are tackling a common problem, information on which is equally accessible to them. To illustrate: he will have both groups work on the same problem (to check data) without having either of them know what the other one is doing. Each of his 16 graduate students becomes a specialist in determining a certain enzymatic reaction. Lembke will then pass an enormous amount of test material (such as infected tissues) through the hands of these students who will do the analysis for which they are responsible with a great deal of accuracy. By pooling all the data, he then pieces the story together. Each individual student, however, seems quite ignorant of what is going on. In spite of all these criticisms and the fact that he probably has a good many enemies, because of his influential position and personal wealth, I think highly of Lembke's intellectual ability and look forward to some good work from his laboratories. He is one of the few men in Germany with a keen interest in the basic nature of micro-organisms coupled with a good medical background. Some of his former students, Kreuzfeld, Dr, Koernlein, Dr Max, and Bock, Mr (MS) are now fermentation microbiologists at the penicillin plant of the Farbwerke Hoechst. Politically, Lembke is violently anti-Communist, as I learned from his comments, and strongly pro-UK and pro-US. He told me he joined the Nazi Party in 1932 when he was still a student at Goettingen because of his anti-Communist tendencies. He soon became disillusioned and became inactive. After World War II, he was in UK custody for a while but was eventually released and reinstated in his position at the Institute. As far as I can ascertain, his belief in democracy as a way of life is realistic and seems quite sincere.

62. CHRISTIAN-ALBRECHTS UNIVERSITAT, KIEL

Although I did not get to visit the bacteriology and biochemistry departments at the University of Kiel, I did obtain the following information on scientists working there. Klose, Professor Franz, head of the Hygienisches Institut since 1946, is mainly interested in social hygiene. Ruge, Professor Heinrich, is listed as specialist in tropical medicine. Massen, Dr Willy (born 1910) has been on

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 35 -

the staff since 1944. He is interested in serological problems concerning typhoid fever, paratyphoid fever, dysentery and typhus; staining of TB organisms; concurrent and terminal disinfection of TB; pasteurization of milk. Leusden, Professor Friedrich Pels has been at Kiel since 1946. Netter, Professor Hans (born 1899) has been head of the Department of Physiological Chemistry and on the staff at Kiel since 1927. He is interested in the physical chemistry of cells (cell potential; condition of calcium in serum; ion equilibrium on membranes; behavior of sodium in the working muscle; ion exchange on muscle). Erich, Dr Heinz has been an assistant professor since 1949. Hoerber, Professor Rudolf, was head of the Physiology Department at Kiel from 1915-33 until he became professor emeritus.

KOELN63. HYGIENISCHES INSTITUT OF THE UNIVERSITY OF KOELN IN KOELNDirector: Mueller, Professor Reiner

The Hygienisches Institut of the University of Koeln in Koeln is a dilapidated institute. Since the building that housed the department before World War II was destroyed, a manufacturer's home had to serve as departmental headquarters when typhus fever began spreading after World War II and Professor Reiner Mueller, the director of the institute and one of the old (born 1879) esteemed teachers of medical bacteriology, was asked to open public health facilities right away. Conditions were extremely primitive; for example, a table top on a bath tub served as working bench. Things haven't greatly improved since then. Although the building has central heating, no connections have yet been made and the roof is still missing. Fortunately this building used to house a testing laboratory of the Pharmaceutical Association and, therefore, provides the department with at least a few of the comforts of a laboratory. Nevertheless, it left me very much depressed. The laboratory is performing mainly routine public health functions. Of research equipment I saw only an instrument for fluorescence microscopy which Mueller claimed was developed at this department. The University of Koeln is a city-supported school (receiving also some state funds). Since Koeln was badly destroyed, many buildings need either repair or have to be reconstructed. There are, however, not sufficient funds to satisfy the needs of all the departments.

Director Mueller has written several textbooks and has been broadly interested in medical bacteriology, also from a historical point of view. He must have become a fixture at Koeln, having been head of this department since 1913. He visited the US, I believe, in 1919. Mueller claimed that he escaped membership of the National Socialist Party but that he served as consulting sanitary officer during World War II.

Also on the staff are Guthof, Dr Otto, first assistant, Brede, Dr, Lempfrid, Dr, and von Vietinghoff-Scheele, Dr Baron. The latter may be related to the aeronautical engineer von Vietinghoff-Scheele, Baron Konstantin (born 1911) who was a scientist at the Motoren-Institut der Luftfahrtforschungsanstalt in Braunschweig.

64. PHYSIOLOGISCH-CHEMISCHES INSTITUT OF THE UNIVERSITY OF KOELN, KOELNDirector: Klenk, Professor Ernst

The Physiologisch-chemisches Institut of the University of Koeln in Koeln is attractive and well-equipped. It specializes in the work of its head, Professor Ernst Klenk, namely lipid chemistry (more specifically the chemistry of nervous tissues). The usual apparatus, high vacuum set-ups, is available and there are one beautiful new teaching room and a new large research laboratory.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 36 -

Professor Ernst Klenk, who was born in 1896, is a doctor of natural science (he also has an honorary MD). He was at Tuebingen before assuming the headship at Koeln in 1936. He was a Nazi Party member. (Klenk is another example of a non-MD heading a department of a German medical faculty.) Among other things, Professor Klenk's present interests are focused on a new nine-carbon hydroxy-amino acid which he calls "neuramin acid." Dr. Boehm, and Dr. Lauenstein, act as assistants in the department.

65. INSTITUT FUER GAERUNGSWISSENSCHAFT UND ENZYMCHEMIE OF THE UNIVERSITY OF KOELN, KOELN

Director: Fink, Professor Hermann

The Institut fuer Gaerungswissenschaft und Enzymchemie of the University of Koeln in Koeln is one of the few fermentation departments in Germany. It specializes mainly on yeast fermentations. The institute is in the process of organization. Many laboratories are under construction and instruments are not yet too abundant. A Warburg apparatus is available. Library facilities are poor, according to the Director who has to rely, like many other scientists, very heavily on reprints. Central library facilities, I was told by several people, are satisfactory.

The Institute Director, Professor Hermann Fink (born 1901) is an old hand in the yeast business and is supported rather generously by the brewing industry. His practices are highly competitive and not always regarded as above-board by some of his colleagues. During the Nazi regime, he was supposed to have been an important member of the Four Year Plan and he is not unwilling to imply this to his students. Academically he was a member, at one time or another, of all three of the important fermentation institutes in Germany, namely the Institute of Technology of Munich, the University of Berlin and, since 1948, Koeln. He received me warmly, although he had to meet at the same time with several directors of the brewing industry for a research conference. He looks more like a successful businessman than someone who would feel comfortable in an ivory tower. His list of publications, which deal widely on various aspects of yeast chemistry (fat formation, yeasts as source of proteins and biosynthesis of vitamins), belie this impression.

I also met Franke, Professor Wilhelm (born 1903), who is a well-read biochemist and who is interested in much more fundamental aspects of microbial chemistry than Fink is. He was trained at Munich, in organic chemistry, and also taught there for a while in the Chemistry Department under Professor Heinrich Wieland, before accepting an associate professorship at the University of Wuerzburg. He remained there until the end of World War II when he was dismissed because of his affiliation with the Nazi Party. From 1945-51, when he was "denazified", he held no academic post. He is now again an associate professor, although his exact status is a little obscure to me. Franke has done interesting work in enzyme chemistry and intermediary metabolism, and I consider him competent. He is considered a "man of the world". He knows some Russian.

Other research at the institute includes work on the Vitamin B content of beer; purine oxidase (Franke); utilization of proteins (Schlie, Dr Ilse); sugar determinations in molasses (Ruecker); metabolic changes in germinating seeds (Franke); a comparison of methods for the determination of amino acids (Weinberg, Bernd). Weinberg is a Canadian who received his BS in chemistry from Toronto. He is now working toward his PhD with Fink. He has very distinct and quite open Communist leanings.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 37 -

MARLUM UEBER DEESBURG66. MIKROBIOLOGISCHES LABORATORIUM UND HYGIENISCH-BAKTERIOLOGISCHE UNTERSUCHUNGSSTELLE, MARLUM UEBER DEESBURGDirector: Schwartz, Professor Wilhelm

I am not certain whether the Mikrobiologisches Laboratorium und Hygienisch-Bakteriologische Untersuchungsstelle is a private or government laboratory.

Its director, Professor Wilhelm Schwartz (born 1896), was formerly at the Institute of Technology at Karlsruhe. He is working now on petroleum bacteriology and food preservation. In addition to his duties in Marlum, he also teaches general microbiology and microbial ecology at the Institute of Technology in Braunschweig. He was to present a paper at a bacteriology meeting in Germany in the late summer 1951 but did not appear. I do not know why.

MARBURG67. HYGIENISCHES INSTITUT, PHILLIPS UNIVERSITAET MARBURG-LAHNActing Director: Schmidt, Professor Hans

The Hygienisches Institut of Phillips University in Marburg-Lahn is satisfactorily housed and quite well equipped for microscopy, medical and general bacteriology. The institute does routine testing for Marburg and vicinity. The monthly budget is three thousand marks of which 14 hundred marks are fixed expenses (light, postage, packages).

Pfannenstiehl, Professor Wilhelm, the former head of the Hygienisches Institut, Phillips Universitaet Marburg-Lahn, was a very enthusiastic Nazi. As consulting bacteriologist to the SS, a position that carried the rank of Standartenfuehrer, he prided himself of his uniform and practically made an SS institute out of his department. He was so zealous that even the progressively more and more lenient denazification boards haven't "purified" him yet. He also spent five years in a detention camp. He is now a volunteer investigator at the institute and receives some income from consulting work that he is doing with the Boehringer Company.

Thus, Professor Schmidt (born 1882), whose full-time position is actually to head the Institut fuer experimentelle Therapie "Emil von Behring", has been acting head of the bacteriology department of Phillips University for some time. He is one of the soundest medical bacteriologists and immunologists in Germany; in a way it is too bad that, by his retirement, his influence will become less felt.

The new head of the institute, who had not yet arrived in July 1951, is Herzberg, Professor Kurt, who, since 1938, was head of the bacteriology department at the University of Greifswald. Professor Herzberg is relatively young (born 1896) but has held positions at both Duesseldorf and Greifswald. He is a well recognized virologist and, over the years, has worked on virus influenza, contagious hepatitis, and Q-fever. He has been editor or member of the editorial board of the following journals: Zentralblatt Bakt. I. Originale; Zeitschrift fuer Hygiene und Infektion krankheiten; Zeitschrift fuer Immunitaetsforschung; Das Deutsche Gesundheitswesen; Pharmazie; Zeitschrift fuer d. gesamte innere Medizin; Deutsche medizinische Wochenschrift and Klinische Wochenschrift. Because of his reputation and his BW potential, it is interesting to note that, as far as all outward appearances are concerned, he was allowed to leave his East Zone post at the University of Greifswald with the blessings of the government. He gave a formal farewell lecture and was allowed, as far as I know, to take his belongings with him. Some of his German colleagues suspect he has been sent as a scientific fifth columnist. Herzberg does not have the reputation of being a very talkative man and this makes a judgment more difficult.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 38 -

[redacted] Poetschke, Dr Gerd, the first assistant of the institute. Dr Poetschke comes from the East Zone, where his parents and brother, a member of the clergy there, still live. Poetschke would like very much to come to the US for a year of study. He is young, enthusiastic, and interested in bacterial cytology (phase microscopy). Like most young people he was affiliated with the Nazi movement (he became a party member in 1937 and served as physician for the Hitler youth movement), but I don't believe he remembers that period of his life too fondly. Of the denazification proceedings he is critical and maintains that the US has not given the Germans too vivid a lesson in democracy.

(b)(1)
(b)(3)

Other members of the staff are Buesing, Professor Karl-Heinrich, who has been at Marburg since 1943 and is now an associate professor, Hornung, Dr Heinrich (born 1900), who is a public health official in Kassel, and also holds an appointment in the department. He is interested in the sanitary aspects of bacteriology and taught from 1944 until the end of World War II at the University of Prague (I presume). Haas, Dr Richard, who is supposed to succeed Professor Schmidt as head of the Emil von Behring Institut, is also an assistant professor in this department. He has had a good chemical background, and is highly respected as an immunochemist.

68. INSTITUT FÜR EXPERIMENTELLE THERAPIE "EMIL VON BEHRING", MARBURG-LAHN

Director: Schmidt, Professor Hans

The Institut fuer experimentelle Therapie "Emil von Behring" in Marburg-Lahn is affiliated with the Behringwerke which is one of the largest producers of biologicals in Germany. Among the biologicals made here are the following vaccines and antisera: diphtheria, pertussis, scarlet fever, gas gangrene, typhoid and paratyphoid, typhus (during World War II - no demand now), tuberculin, foot-and-mouth disease (great need in the West Zone now; all of the vaccine used to be made at the Island of Riems which is situated in the East Zone, off Greifswald), botulism, toxoplasmosis, Q-fever, brucellosis, leptospiral infections. Although this institut has broader experience than most groups in the growing of pathogenic bacteria, it has dealt only with flask or bottle culture methods of production. The culture of aerobic organisms is kept separate from that of anaerobic bacteria. In general, production methods are the usual ones used in the US.

Professor Hans Schmidt, who is a cosmopolite and speaks English well, [redacted]

[redacted] He considers BW a definite possibility and rinderpest and chicken diseases good bets as potential weapons.

(b)(1)
(b)(3)

One of Professor Schmidt's students, Krech, Dr Ullrich, was to be brought to the US on ERP funds in September for 15 months.

69. PHYSIOLOGISCH-CHEMISCHES INSTITUT, PHILLIPS UNIVERSITÄT, MARBURG-LAHN

Director: Dimroth, Professor Karl

The Physiologisch-chemisches Institut of the Phillips Universitaet in Marburg-Lahn is one of the rare instances in Germany where a department of physiological chemistry is headed by a PhD rather than an MD and an organic chemist at that. Another remarkable thing is that Professor Karl Dimroth (born in 1910) is of a very tender age in Germany for a department head. To remind Dimroth of his youth and keep him in his proper place, he holds, however, only the rank of associate professor. His training is very good and he has been affiliated at one time or another with the universities in Goettingen and Tuebingen, in addition to Marburg.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 39 -

Dimroth's research deals with three phases. One group is studying nucleic acids, especially those of yeasts. A second is working on dye chemistry. A third is working on microbial chemistry (a carotinoid pigment from Torula that Dimroth claims is different from others; effect of nitrogen source on the guanine/adenine ration in yeast).

Although I had only little time to converse with Professor Dimroth, I was struck by his alertness, levelheadedness, and accurate analysis of the state of microbiology and biochemistry in Germany. Jaenicke, Dr Lothar, is Professor Dimroth's assistant.

MUENSTER70. HYGIENISCHES INSTITUT UND STAATLICHE FORSCHUNGSABTEILUNG FUER GEWERBEHYGIENE OF THE UNIVERSITY OF MUENSTER, MUENSTER

Director: Joetten, Professor Karl Wilhelm

The Hygienisches Institut und Staatliche Forschungsabteilung fuer Gewerbehygiene of the University of Muenster is one of the largest and best equipped bacteriology departments in Germany. Its specialty is industrial hygiene and such problems as silicosis. The nearness of the institute to the industrial region of Germany makes it a logical center for research in that field. In terms of equipment, this department has little reason to complain, inasmuch as support for work on the effect of dusts on tissues is well supported by industry. Among other instruments there are an electron microscope, electron diffraction equipment, an X-ray machine, aerosol chambers in which animals can be exposed, specialized grinders, a mobile X-ray unit, ultrasonic equipment, a Warburg apparatus, a well equipped photographic laboratory, fluorescence microscopes and a beautiful shop. In addition to research, this institute has routine diagnostic functions and, in the latter capacity, handles about 35 thousand cases per year (less than the common load for institutes of that type).

The personality of the institute's director, Professor Karl Wilhelm Joetten, is not particularly appealing and he does not make the impression of a deep thinker. The neatness of his laboratories and the resources he is using, however, probably reflect quite admirable administrative ability. He was born in 1886 and, during an academic career at Leipzig and Muenster, has given most of his attention to problems of industrial hygiene, with excursions into several other phases of medical bacteriology. He is consultant on a research council that was organized this summer to stimulate research on aerosols. During 1950-51, he was president of the German Society of Hygiene and Microbiology and, in that capacity, was in charge of the national meeting at Muenster. He also has been one of the editors of the Archiv. fuer Hygiene since 1936. Such honors do of course little to diminish his pomposity.

Professor Joetten has a fairly large staff. Among them the following: Gaertner, Professor Horst (born 1911) who is also working in the field of industrial hygiene; vor dem Esche, Dr Paul; van Marwyck, Dr Christian, who has worked on copper poisoning, respiratory diseases, stimulatory effects of penicillin and more recently on the Loens' method for proving paternity. From 1938-39 van Marwyck taught pathology at the University of Dublin. He speaks English well. Bräusa, Dr Friedrich-Wilhelm (born 1913) works with papers on para-aminobenzoic acid as growth factor for pathogenic bacteria and on methods for testing disinfectants. Pfefferkorn, Dr Gerhard (born 1919) is a young impressive physicist who is responsible for the physics aspect of Joetten's program and is very much interested in electron microscopy.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 40 -

71. PHYSIOLOGISCH-CHEMISCHES INSTITUT, UNIVERSITY OF MUENSTER, MUENSTERDirector: Lehnartz, Professor Emil

The Physiologisch-chemisches Institut in the University of Muenster is a beautiful, well-equipped department. Its library facilities are very good. I believe we may expect steady work from this institute.

The director of the institute, Professor Emil Lehnartz (born 1898) has been at Muenster since 1939 and since 1946, has been head of this department and president of the university. He will be succeeded as president by Professor Strugger, Siegfried, who formerly headed the Botanisches Institut of the Tieraerzliche Hochschule in Hannover and began there his work on living-and-dead stains. Professor Lehnartz' main scientific interests are in intermediary metabolism and muscle physiology, a field in which he has published fairly extensively.

Lehnartz' assistant is Menne, Professor Fritz, who is young (born 1910), polite and somewhat pedantic. Inasmuch as he began his academic career at Muenster, it is not astonishing that he is also interested in muscle physiology. In addition, he has done research on the metabolism of creatinine and amino acids. He has been with the University of Muenster since 1944, first as assistant professor and recently as associate professor. He is quite familiar with the UK and US scientific literature because he abstracts papers written in English for the Berichte uber die Gesamte Physiologie und Experimentelle Pharamkologie.

Also on the staff is Pieper, Dr Josef, whom I did not meet and about whose scientific activities I know nothing. I did, however, meet Schmidt, Dr Carl-Gottfried, who is a delightful, aesthetic young volunteer assistant in the department. He has his MD and also two years of post-doctorate work in pathology, one additional year of research in pharmacology and one year in physiological chemistry. About 1953, he will become an assistant professor. At the moment, he is receiving no salary and is supported by his parents but he plans to remain at the University of Muenster nevertheless.

72. BOTANISCHES INSTITUT, UNIVERSITY OF MUENSTER, MUENSTERDirector: Strugger, Professor Siegfried

The Botanisches Institut of the University of Muenster is completely new, extraordinarily spacious and quite well equipped. Library facilities are poor as far as current journals are concerned but extremely useful for historical work. The director has an attractive apartment right in the building - this was one condition he set for coming to the university. The botanical garden associated with this institute is one of the most beautiful and useful botanical museums I have ever seen.

The director of the Institute, Professor Siegfried Strugger, is a charming go-getter in whom high-class scientific ability and superb leadership are harmoniously blended. He was born in 1906 in Carinthia, Austria and brought to Germany a personal warmth that makes him very popular among his colleagues and also makes his aggressiveness more palatable. He took his training at the University of Graz; he taught at Giessen, Greifswald, Jena and Hannover before coming to Muenster. He is a good cellular physiologist with wide interests. Among his published works are papers on growth, water economy of plants and fluorescence and phase microscopy. He was on the editorial board of Fortschritte der Botanik 1936-42. As of July 1951, he was doing research on photosynthesis and on the structure of chloroplasts. Professor Strugger is outspokenly anti-Communist. He seems very religious and gives the impression of having been anti-Nazi. The same impression was given in informal conversation by his wife on 13 Sep 51 when I was a guest at their home. Strugger is perturbed by the

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 41 -

aggressive spirit that again permeates German student fraternities. I believe that he will do his best during his tenure as president of the University of Muenster (1951-52) to guide the student body toward more democratic goals. Professor Strugger remembers with fondness the time he spent in 1949 in the US at the Medical Field Research Laboratory at Fort Knox where he worked with Dr Krebs and set up facilities for fluorescence microscopy. When his tenure as president is over, he hopes to visit the US again.

Pharmaceutical botany is handled by Schratz, Professor Eduard (born 1901) about whose scientific activities I know little. A younger man is Baumeister, Professor Walter (born 1913), a plant physiologist interested in plant respiration, the effect of boron on the nitrogen content of plants, and on their photosynthesis and respiration. Perner, Dr Ernst is an assistant.

MUNICH73. BIOCHEMISCHE ABTEILUNG, CHEMISCHES LABORATORIUM, KAISER-WILHELM UNIVERSITY, MUNICH

Director: Lynen, Professor Feodor

The headship of the once illustrious Biochemische Abteilung, Chemisches Laboratorium of the Kaiser-Wilhelm University in Munich has been open for several years. It has been offered to several men, for instance, Kuhn, Richard, who declined it since the offer gave no guarantee that adequate financial support would be forthcoming. Since the Institute building suffered greatly from bombing, no outstanding German chemist so far has been willing to accept the appointment without being offered also the means that would allow the development, once again, of a strong department.

Here, however, in modest circumstances, works one of the most brilliant young (born 1911) German biochemists, Professor Feodor Lynen. Professor Lynen is a highly capable scientist who politically appears to have his heart in the right place. He is considered by Professor Karl Dimroth, director of the Physiologisch-chemisches Institut of Phillips Universitaet in Marburg-Lahn, to be (with Professor Karl-Martius at Tuebingen) best among German biochemists working in intermediary metabolism and by Professor Otto Warburg of the Kaiser-Wilhelm Institut fuer Zellphysiologie in Berlin to be the most promising young biochemist in Germany. He has done excellent work on the carbohydrate metabolism of microorganisms, has demonstrated the importance of -SH groups in coenzyme A and, as of August 1951, was engaged in purifying coenzyme A and coenzyme A complexes and studying their role in metabolism. For his work he has a Warburg apparatus at his disposal, small primitive shaking machines, a pH meter, spectrophotometer, centrifuges and a refrigerated room. Lynen's father-in-law, Professor Heinrich Wieland (born 1877), is the retired and famous former head of this chemistry department. Since Wieland has been editor of Liebig's Annalen since 1922, most papers from the department are being published in this journal. Professor Lynen may visit the US in the spring 1952 on a Rockefeller fellowship.

Holzer, Dr Helmut, who is Lynen's assistant, is a seemingly enthusiastic and capable investigator. Lynen would like to see him come to the US on an exchange fellowship.

74. PHYSIOLOGISCH-CHEMISCHES INSTITUT, KAISER-WILHELM UNIVERSITY, MUNICH

Director: Hahn, Professor Amandus

The Physiologisch-chemisches Institut of the Kaiser-Wilhelm University in Munich hopes to move into a new building. In the meantime, it is in quarters which, though not luxurious, seem adequate. My visit was too brief to allow a definite impression, but I left with the feeling of having visited an average department.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 42 -

Professor Amandus Hahn (born 1889) is director of the Institute. I did not meet him but understand he has done a considerable amount of work on carbohydrate metabolism, a good portion of that on yeast.

Meier, Dr Erich, who is Hahn's assistant, is a strikingly handsome and intelligent person. He is in the process of becoming an assistant professor and would like to come to the US on an exchange appointment. Niemer, Dr Helmut (born 1900) is an associate professor in the department. He, too, has worked on carbohydrate metabolism and on the biological chemistry of nucleic acids.

75. HYGIENISCHES INSTITUT, KAISER-WILHELM UNIVERSITY, MUNICH

Acting Director: Braun, Professor Hugo

The building in which the Hygienisches Institut of the Kaiser-Wilhelm University in Munich was housed was badly bombed and the department is not very active. I did not visit it.

Professor Hugo Braun (born 1881), who left the University of Frankfurt for the University of Istanbul, after Hitler came to power, returned after World War II as acting head of the department. He has published quite extensively in the fields of immunity and serology.

Schaefer, Dr Walther, is an associate professor in the department; Kanz, Dr Ewald, an assistant professor; and Berg, Dr Steffen, an assistant.

STOCKSTADT

76. FERMENTATION LABORATORIES OF THE ASCHAFFENBURGER ZELLSTOFF A. G., STOCKSTADT

Director: Bernhauer, Professor Konrad

At the Fermentation Laboratories of the Aschaffener Zellstoff A. G. in Stockstadt, I met Professor Konrad Bernhauer, director and one of the most competent fermentation experts in Germany. Because of his Nazi affiliation, Professor Bernhauer is no longer a member of the academic circle. I believe, however, that the University of Frankfurt is toying with the idea of allowing him to lecture in industrial microbiology. Should that happen, the actual founding of a chair for industrial microbiology would be hindered only by finances.

Professor Bernhauer was born in Moravia in 1900 and lived practically all of his adult life in Prague. He considers himself Austrian, although according to Hitler's definition he was a Sudeten German. Until 1938, he was head of the biochemistry division in the Institute for Organic Chemistry of the German University at Prague. In that capacity, he held an associate professorship. When Professor Waldschmitz-Leitz left the headship of the Institute of Biochemistry at the German Institute of Technology at Prague, Bernhauer became his successor (still as associate professor). In 1940, the departments of biochemistry and food chemistry were joined into a single department which Bernhauer then headed. At the peak of his career, he had close to one hundred assistants working in the department. Unfortunately for Bernhauer, he became "Dozentenfuhrer" in 1939 which was a liaison position between the faculty and the Nazi Party. Together with that position came the rank of Standartenfuhrer in the SS (equivalent to a major). In 1943, because of his lack of enthusiasm (Bernhauer maintains) he was relieved of his position and thereafter remained inactive. Bernhauer claims that he was no Nazi at all and that he helped several people, like Heumann, Dr Inu, a half-Jew who recently emigrated to Canada (last heard of in Montreal). Bernhauer's hands may have been hily-white but the fact remains that he wore a black uniform and not completely without enthusiasm, if one can take the stupendous development of his department after the occupation of Czechoslovakia by the Germans as an indication. Bernhauer has an ingratiating charm very difficult to resist.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 43 -

Bernhauer has worked on practically all conceivable fermentations. He understands large-scale production of micro-organisms and microbial products well. Among the problems in which he is presently interested are the following:

- a. production of vitamin B₁₂ by Streptomyces.
- b. growth of Torula utilis (plant proteins together with extracts from this yeast replace, according to Bernhauer, animal proteins for pigs).
- c. submerged production of cellulases and amylases from Cytophaga (such preparations are used in Germany as medicinals against certain types of intestinal disturbances).
- d. nitrogen fixation by Penicillium and other molds (he isolated these organisms from decaying cellulose on a nitrogen-free medium); wants to test this further.
- e. growth of yeasts on waste liquor and pentoses.

Bernhauer's students constitute the most important body of experts in micro-organisms and microbial products in Germany. Inasmuch as many of them were of German ancestry, most were expelled from Czechoslovakia after the end of World War II. Among his more recent collaborators were:

Weigner, Kurt

Friedrich, Wilhelm, until recently at Biochemie, G.m.b.H., Innsbruck; now at Stockstadt

Mara, H

Sachs, Hilde

Miksch, Johann H

Mielke-Miksch, Ruth

Grosser, Annemarie

Kundtner-Schwarzkopf, Hanne

Irrgang, Karl (after World War II, I believe, at Lessing Chemie, G.m.b.H. in Erfurt, East Zone; now with Lessophara, G.m.b.H. at Bronnzell bei Fulda)

Mueller, Paul

Theile, Ernst

Sulcova, Marie

Schaumberger, Irmgard

Weidner, Irmgard

Rauch, Johann (now at the fermentation chemistry laboratories of Chem. Fabrik Joh. A. Benckiser G.m.b.H., Ludwigshafen am Rhein)

Peiker, Inge

Napramik, W

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 44 -

Schueckerova, VKnobloch, H (Laboratoire Clerenot, 3 Rue Lamblardie, Paris 120)Brunner (Biochemie, G.m.b.H., Innsbruck)Deitrich (Stockstadt)

Professor Bernhauer, though still nostalgic about Prague which he loved, finds his new place of activity very satisfactory. New laboratories are being built for him, and he will have a staff of about 16-17, among them at least six or seven university-trained scientists. He has a contractual arrangement with the Aschaffenburg Zellstoff A.G. that will allow him to benefit directly from any patents that may come from his work. This is in addition to the salary that he is drawing. The fermentation equipment that Bernhauer is assembling is the best I have seen in Germany. He has available two large open fermentation tanks for the production of food yeast; these are unsuitable for more delicate fermentations. He also has a good 1000-L pilot tank, two shaking machines, a great many glass fermenters of the Waldhof type, several 10-L fermenters (pressure-cooker type embodying the Waldhof principle), one smaller enamel-lined tank used as inoculum tank, excellent microscopes and a Sharples centrifuge. Professor Bernhauer indicated that the company is very generous to him and that the set-up gives him practically as free a hand in what he wishes to do as a university laboratory would.

STUTTGART77. INSTITUT OF TECHNISCHE HOCHSCHULE, STUTTGART

Professor Niethammer, Annaliese (born 1901), associate professor at the Technische Hochschule in Stuttgart, was recommended to me by Professors Mevius and Engel of the University of Hamburg Staatsinstitut fuer Allgemeine Botanik. Professor Niethammer's interests lie mainly in the taxonomic aspects of mycology (for instance on the genus Penicillium). This is rather astonishing, inasmuch as she received her training at Prague from Professor Konrad Bernhauer, one of the foremost authorities in the field of fermentation chemistry.

Professor Niethammer was an assistant and eventually associate professor at Prague which she was probably forced to leave after the liberation of Czechoslovakia. She came to Stuttgart in 1948 and started more or less afresh. Since then, her scientific reputation has suffered a bit from the publication of half-baked textbooks which seemed over-popularized for German tastes.

TUEBINGEN78. INSTITUT FUER ANGEWANDTE BOTANIK, EBERHARD-KARLS UNIVERSITAET, TUEBINGENDirector: Zimmerman, Professor Walter

Professor Walter Zimmerman (born 1892), who is director of the Institut fuer angewandte Botanik at the Eberhard-Karls Universitaet in Tuebingen, is an unusually energetic and stimulating man, with central interests in evolutionary botany. He has written several books and many papers on phylogeny of plants, algology, plant geography, paleobotany, and conversed authoritatively on the phylogeny of bacteria.

Professor Zimmerman was in the army for 12 years and was wounded several times. He has been in Tuebingen since 1925 and was recently offered the headship of the botany department at Karlsruhe.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

(b)(3)

- 45 -

79. BOTANISCHES INSTITUT, EBERHARD-KARLS UNIVERSITAET, TUEBINGENDirector: Buening, Professor Erwin

The Botanisches Institut of the Eberhard-Karls Universitaet in Tuebingen is headed by the well-known plant physiologist, Professor Erwin Buening (born 1906).

Under him is Paech, Professor Karl (born 1908). Dr Paech is Ruhland-trained and taught for some time at Leipzig. During World War II, he worked on food preservation for the armed forces and then joined the botany department at Tuebingen. He is one of the editors of the Berichte ueber die Wissenschaftliche Biologie. His scientific interests concern mainly the biosynthesis and metabolism of "secondary" plant products (volatile oils, alkaloids, tannins and anthrocyanins). He just returned from a nine months' stay in Newcastle where he held a Research Council Fellowship.

80. HYGIENE-INSTITUT OF THE EBERHARD-KARLS UNIVERSITY, TUEBINGENDirector: Stickl, Professor Otto

The Hygiene-Institut of the Eberhard-Karls University in Tuebingen is quite well suited for routine diagnostic work and for research in medical bacteriology. It has roomy laboratories, an ultracentrifuge and ultrasound equipment. An electron microscope was on order in August 1951. Library facilities of the department are poor, but the near-by institutes of the Max-Planck Society have excellent libraries.

Knapp, Dr Werner (born about 1916), who assisted former Director, Professor Otto Stickl (died fall 1951), is studying the effect of ultrasonic waves on bacterial antigens. He has also worked on toxoplasmosis.

81. MAX-PLANCK-INSTITUT FUER BIOLOGIE, UNIVERSITY OF TUEBINGEN, TUEBINGENDirector: Melchers, Professor Georg

The Max-Planck-Institut fuer Biologie of the University of Tuebingen in Tuebingen is a superb place to do research and the quality of the work done there corresponds to the excellence of the physical facilities. The equipment and working conditions are excellent. Six completely controllable chambers (as to humidity, light and temperature) are available. Excellent centrifuge, balances, Warburg apparatus and carefully separated greenhouses for work with viruses are also available. The institute building has an apartment for the director, as well as a guest apartment where visiting investigators can reside.

Professor Georg Melchers (born 1906) has been director of the institute since 1947 (having been with the Berlin-Dahlem Group first) and heads there a group in plant biology. He has been working on the physiology of flowering, photoperiodism, the nature of phytopathogenic viruses and cytoplasmic inheritance.

Maly, Dr Roland (born 1923), a capable Viennese cytogeneticist, served as my amiable guide at the Institute. Weidel, Dr Wolfhard, who recently returned from a stay with Dr Delbrueck at the California Institute of Technology, is studying the mechanism of bacteriophage adsorption and has concerned himself lately with the chemistry of bacterial membranes.

The zoology groups at the Institute are headed by Kuehn, Professor Alfred (born 1883) and Professor Hartmann, Max (born 1876). Kuehn is a well-known zoologist who has done outstanding work on the genetics of pigment formation in insects and the ultrastructure of butterfly wings. Professor Max Hartmann, the oldest of the group, has done a large amount of work in the field of reproduction and sexuality.

~~SECRET/US OFFICIALS ONLY
SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 46 -

82. MAX-PLANCK-INSTITUT FUER BIOCHEMIE UND PHYSIOLOGISCH-CHEMISCHE INSTITUT,
UNIVERSITY OF TUEBINGEN, TUEBINGENDirector: Butenandt, Professor Adolf

The Max-Planck-Institut fuer Biochemie und Physiologisch-Chemische Institut at the University of Tuebingen in Tuebingen is one of the most outstanding biochemistry groups anywhere. Research done there is basic and imaginative. Superb laboratories are excellently equipped with an electron microscope, two Tiselius electrophoresis apparatuses, two analytical ultracentrifuges, infrared spectrophotometer, Beckman apparatus, microbalances and Geiger-Mueller counting equipment.

The director of the Institute is Professor Adolf Butenandt. He was on his way to the Chemistry Congress in New York and I did not meet him. He is, however, regarded as an ingenious, supremely gifted chemist, with a magnetic personality.

The Institute is divided into three divisions: (a) Organic chemistry, under the direction of Baerberg, Dr Heinz (born 1912); (b) Virus research under Schramm, Dr Gerhard (born 1910) and Schaefer, Dr Werner (born about 1901); and (c) Biophysics under Friedrich-Freksa, Dr Hans (born about 1906).

Dr Dannenberg is a steroid chemist, interested in carcinogenic hydrocarbons, ultraviolet absorption and chemical constitution. Additional work in the organic chemistry division deals with the metabolism of tryptophane (by Hellmann, Dr), pupation in insects and volatile materials involved in the sexual attraction of butterflies.

The division of virology is doing some of the soundest work in microbiology in Germany. Dr Schramm is a top-notch protein chemist and has worked with Butenandt for some time. Dr Schaefer is a capable veterinarian who is using modern physical methods to study animal viruses. In their studies, they use various viruses that are to represent a range of physical and chemical complexity (tobacco mosaic, potato virus X, bacteriophage, Newcastle disease virus, fowl plague virus, granuloma, foot-and-mouth disease virus). Recent work has covered the splitting of the tobacco mosaic virus, a study of the pieces, and their recombination; isolation and characterization of Newcastle disease virus and molecular weight of tobacco mosaic virus. Both Schramm and Schaefer, before the end of World War II, worked at the Reichsforschungsanstalt Insel-Riems and are still in contact with members of the Riems group. One of the more applied studies to which they are giving attention is the preparation of foot-and-mouth disease virus inasmuch as production of that virus in the West Zones is becoming a practical necessity. Both Schramm and Schaefer are first-rate scientists.

Dr Friedrich-Freksa, whom many consider the most brilliant of the group, is a zoologist turned biophysicist. An understanding of self-reproduction is his main goal of investigation. In August 1951, he was doing some fascinating work on the turn-over of isotopically-labeled phosphorus in the nuclear material of certain protozoa.

Also in the Department of Physiological Chemistry, but not members of the Planck-Institut, are Martius, Professor Karl (born 1906) and Ghlmeyer, Professor Paul (born 1908). Both are very good enzyme chemists and Martius (along with Professor Feodor Lynen, director of the Biochemische Abteilung of the Chemisches Laboratorium at the Kaiser-Wilhelm University in Munich) is considered by Professor Karl Dimroth, director of the Physiologisch-chemisches Institut of the Phillips Universitaet in Marburg-Lahn, and other colleagues, to be the best of the German biochemists dealing with intermediary metabolism. Martius has done excellently on the citric acid cycle and recently has done some beautiful work on the uncoupling effect of thyroxine. He attended the International Chemistry Conference in New York in September 1951. I met Professor Ghlmeyer at the

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 47 -

Biochemistry Convention in Mainz in August 1951. He has been concerned with energy-rich phosphate bonds and had just returned from the University of Pennsylvania where he worked as research associate. Incidentally, Ohlmeyer is, or at least was, director of the Leibniz-Kolleg which is one of few German attempts to set Conant's concept of general education into practice.

83. PHARMAKOLOGISCHES INSTITUT, UNIVERSITY OF TUEBINGEN, TUEBINGENDirector: Haffner, Professor Felix

The Pharmakologisches Institut of the University of Tuebingen in Tuebingen is well equipped for classical pharmacological work and apparently quite active.

Its director, Professor Felix Haffner, is a jovial and friendly gentleman (born 1886), who showed me through the Institute with considerable pride. Schmid, Dr. Walter, an assistant professor in the department, has recently worked on an explanation for the increase in bacterial growth often observed at the edge of zones of inhibition.

84. PATHOLOGISCHES INSTITUT, TUEBINGENDirector: Goessner, Dr. W

A staff member of the Pathologisches Institut in Tuebingen, Dr. W. Goessner, has worked on the histochemistry of the Strugger effect. He spent nine months in Newcastle during the spring 1951 as exchange pathologist. He is young (born about 1916), and active. In the field of cytochemistry, he is interested in nucleic acids. A good portion of his time, however, is spent in routine clinical pathology.

WEIHENSTEPHAN/FREISING85. FAKULTAET FUER LANDWIRTSCHAFTAN DER TECHNISCHEN HOCHSCHULE MUENCHEN, WEIHENSTEPHAN/FREISINGDirector: Demeter, Professor Karl

The Milchwirtschaftliches Institut of the Fakultaat fuer Landwirtschaftan der Technischen Hochschule Muenchen in Weihenstephan/Freising is now headed by Zeller, Professor Karl. Professor Zeller succeeds Professor Karl Demeter (born 1892) who is one of Germany's best-known dairy bacteriologists and, until the end of World War II, was head of the Institute. Demeter wore his brown shirt enthusiastically and eventually paid with his position for his zeal. As of August 1951, he was spending his time writing theoretical papers and doing some consulting work. He is, of course, bitter about his dismissal, especially since he feels that private jealousies were involved. However, Demeter has expressed to me no intensive antagonism to the US and, in fact, thinks of his stay in Cornell University many years ago with unconcealed pleasure. In general his political opinions (and those of his wife) as expressed to me, were quite moderate. Mrs. Demeter comes from Silesia, where she lost all her possessions after Silesia became part of Poland. Nevertheless, her attitude is amazingly sane.

The bacteriological division of the Department of Dairy Industry is now headed by Tewes, Dr. Gotthold, a biochemist whose microbiological background is supposedly somewhat limited. A younger assistant in the division, Kundrat, Dr. Walter, recently isolated an Aspergillus that produces an antibiotic active against TB and several pathogenic fungi. Dr. Kundrat is definitely unhappy about the administration of the institutes at Weihenstephan where the proper political and private connections apparently are of decisive importance. Dr. Kundrat is a refugee from Czechoslovakia, where he took his university work and which he left after the end of World War II. He speaks Czech.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 48 -

86. FAKULTÄT FUER BAUWESEN DER TECHNISCHEN HOCHSCHULE MÜNCHEN, WEIHENSTEPHAN/FREISINGDirector: Weinfurter, Professor Franz

The Institut fuer Gaerungstechnik und Gaerungsphysiologie of the Fakultät fuer Bauwesen der Technischen Hochschule Muenchen in Weihenstephan/Freising has two or three spacious and neat research laboratories and one poorly equipped teaching laboratory. The teaching brewery appeared to me to be well equipped. Equipment for microscopy and microphotography is very good but there is little else in the way of specialized equipment.

Professor Franz Weinfurter (born 1899) is the director of the Institut. His assistant is Uhl, Dr Antol. In general, the personnel and type of work of the Institute appeared non-spectacular to me. Aside from the practical brewing aspects, the fermentation set-up is also unimpressive.

Among problems under investigation are the effect of tyrothricin on "beer sarcina", efficacy of various surface-active agents, the use of ultraviolet radiation for disinfection of air, the metabolism of certain lactic acid bacteria that occur as spoilage organisms in beer.

Professor Weinfurter also heads the Institut fuer Technische Mykologie at the Technischen Hochschule Muenchen in Weihenstephan/Freising. Here he succeeds Professor Karl Ripple (born 1903), who headed the Institut fuer Technische Mykologie from 1943-45 when he was put out of circulation because of his Nazi affiliation. Ripple was back in Freising in August 1951, however, as head of the botanical laboratory of the Bayerische Landessatzuchtanstalt.

Windisch, Dr Siegfried (born 1913) is an assistant at the Institut fuer Angewandte Botanik of the Technische Hochschule Muenchen in Weihenstephan/Freising, and a specialist in yeasts. Enders, Dr Curt (born 1912), a fermentation chemist, is director of the Wissenschaftliche Station fuer Brauerei in the same Hochschule.

VOLDAGSEN87. MAX-PLANCK-INSTITUT FUER ZUECHTUNGSFORSCHUNG (ERWIN BAUR-INSTITUT), VOLDAGSENPerson Visited: Kaplan, Dr Reinhard

The Max-Planck-Institut fuer Zuechtungsforschung (Erwin Baur-Institut) in Voldagsen is located on a former estate in Voldagsen - the middle of nowhere. In addition to the Voldagsen establishment, the Max-Planck-Institut has substations also in Ladenburg am Neckar (Station Rosenhof) and in Scharnhorst (Station Scharnhorst).

Dr Kaplan (born 1912), is a very capable researcher, in charge of the Division of Research on Mutations. He and Michaelis, Dr Peter (born 1900), head of the Division of Plasma Research and a fine cytogeneticist, are among the few in this institute who are dealing with basic research. Much of the other work deals with plant breeding.

Dr Kaplan is a rare bird in Germany, namely a microbial geneticist. After World War II, a portion of which he spent in the German Army as a sanitation soldier, he wisely reflected on what research he could do with a minimum of funds and chose to work on the genetics of bacteria. One of his most interesting contributions is the demonstration that mutations can be achieved by photodynamic action. Dr Kaplan is geographically and intellectually very much isolated. The institutional library, though very adequate for the agricultural aspects of genetics, has only few of the journals in the basic sciences. For that reason Dr Kaplan tries to maintain outside contacts. He is an enthusiastic and gifted scientist, a pleasant and artistic individual and aware of scientific activities around him.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 49 -

WUERZBURG88. PHYSIOLOGISCH-CHEMISCHES INSTITUT, JULIUS MAXIMILIANS UNIVERSITY, WUERZBURGDirector: Ackermann, Professor Dankwart

The old building in which the Physiologisch-chemisches Institut of the Julius Maximilians University in Wuerzburg is housed was bombed and the department is now a guest of the physiology department. Facilities and equipment are poor. Considering the relatively poor financial circumstances of the Bavarian universities, it will probably be some time before this department will be rebuilt.

The head of the Institute is Professor Dankwart Ackermann, a delightful and active man who has enriched the scientific world with information on the nitrogen metabolism of lower animals (mainly on biologically produced amines). Among many other findings, his discovery of histamine is noteworthy. He was born in 1878, but exhibits an enviable degree of enthusiasm and vigor. He enjoys his work and has been very productive.

Professor Ackermann's second-in-command is Mueller, Professor Ernst (born 1901) who holds an assistantship in the department and has also worked on the isolation and identification of biologically produced amines.

89. CHEMISCHE INSTITUT, JULIUS MAXIMILIANS UNIVERSITY, WUERZBURGDirector: Fischer, Professor Gottwald

Professor Gottwald Fischer is the head of the Chemische Institut of the Julius Maximilians University in Wuerzburg. Though an organic chemist, he has been interested in chemotactic effects on motile fungal spores and bacteria and has attempted to isolate materials responsible for chemotaxis. Under his experimental conditions, certain amino acids and salts seem to be involved.

Professor Fischer has been working together with Burgeff, Professor Hans (born 1887), head of the botany department and a well-recognized mycologist.

90. HYGIENISCHES INSTITUT OF THE JULIUS MAXIMILIANS UNIVERSITY, WUERZBURGDirector: Sonnenschein, Professor Curt

The Hygienisches Institut of the Julius Maximilians University in Wuerzburg possesses good teaching facilities and fairly adequate research facilities for work in medical bacteriology. Physically this is quite an impressive organization. Intellectually there is room for much improvement. The research standing of the institute is relatively low because only little research is being done now.

The Institute Director, Professor Curt Sonnenschein (born 1894), is a former student of Professor Mueller at Koeln and worked for several years on bacteriophage. Since then, he has given attention to several medico-bacteriological problems, such as brucellosis and recently also tularemia. His scientific career brought him from Koeln to Hamburg, and eventually, via Prague, to Wuerzburg. He has been in Africa on several occasions and visited the US in 1931 and 1951 when he traveled on invitation from the High Commissioner, as Dean of the Wuerzburg Medical School. Behind a sober front, Professor Sonnenschein hides a pleasant sense of humor; a sometimes mulish stubbornness conceals a fair degree of willingness to adapt and yield position. Scientifically he is only mediocre but he is keenly interested in improving medical teaching in Germany and is influential enough to have his opinion heard.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~

(b)(3)

- 50 -

His three assistants are Dimling, Dr Theodor, Kruppe, Dr Walter, and Schmid, Dr Walter. Dr Dimling, a young bacteriologist, came from the fields of pharmacy and medicine. He is doing some interesting work on dental microbiology.

~~SECRET/US OFFICIALS ONLY~~
~~SECURITY INFORMATION~~