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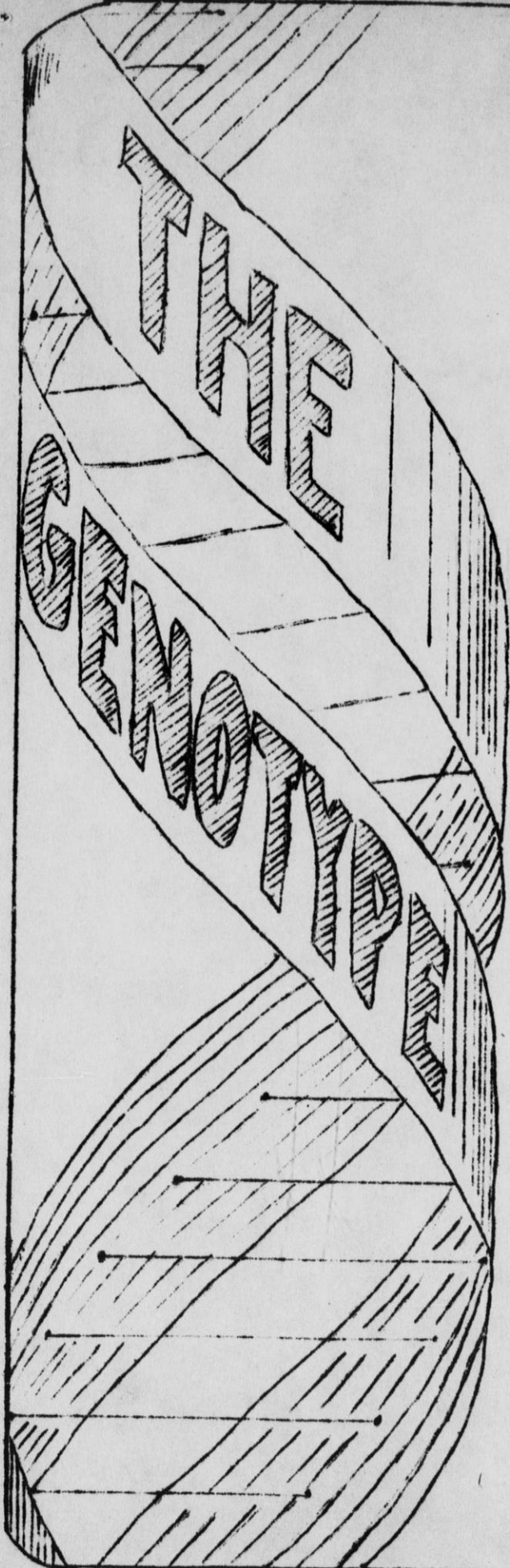
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Dr. Reiman



NUMBER 41..1957-1958

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 Irene Uchida, State University Hospital, Toronto, Canada.
 A. R. Gopal-Ayengar, Atomic Energy Establishment, Bombay, India.
 R. Takahashi, Okayama University, Kurashiki, Japan.

PICNICS

The fall picnic of the Genetics Department got off to a slow start because of the late arrival of a few hot dishes but was enjoyed by all, thanks to the warmth of the Hoyt Park shelter and a couple roaring fires. The children enjoyed finding lollipops in the grass, under leaves and in the bushes. Several of the grownups participated in more adult feats of skill such as volleyball and baseball.

The spring picnic held on June 12 at Burrows Park was a great success. The weather, although undecided at first, was beautiful; the food was on time and good. Again, the younger set enjoyed searching the environs for goodies while the others participated eagerly in a variety of sports. (The new "flying saucer" proved to be too complicated for the lowly earthborn geneticists.) The evening was finally forced to end for the majority when it became necessary to swing more often at the bugs than at the badminton birdie.

SPORTS

The 1957 summer softball team rode through an undefeated season in the inter-science league on the fast ball pitching of Kermicle and good hitting topped by Hartung's 500 plus average. The final game pitted the Genetics team against the highly regarded former champion, Physical Chemistry team. Four-hit pitching of Kermicle, after only two days rest, and a bases loaded triple by Friedman topped by good defensive play stormed the Geneticists to a 6-2 victory. Other members of the team were Cochran, Cooper, Greenblatt, Kiddy, Kraemer, Mares, Menge, Robison, Spies and Zimbelman.

Champions of the 1956-57 Ag Grad Basketball League, the Genetics team accounted well for itself in the 1957-58 inter-science league, losing only two games. With the tallest man of the starting five at six feet the team relied on speed and the over-all play of Menge to gain a playoff spot. After winning the first two playoff games decisively and losing Menge to Fort Leonard Wood, Missouri, the final game was won in the last minute of play by McArdle having a starting five averaging at least 6'4". Other team members were Cochran, Friedman, Hartung, Hurt, Kermicle, Mares, Robison, Spies and Zimbelman.

The 1958 softball team proved to be another fine team. After a slow start and losing the second game, the team settled down to sweep the remaining games, including the playoffs and championship. The team members were Cooper, Kermicle, Robison, Hurt, Hartung, Kraemer, Zimbelman, Spies, Cochran and Mares (manager).

SEMINARS

The Brookhaven Symposium on Mutation was the subject of the department seminar for the fall. A handful of students took the seminar for credit and were required to give a seminar during the semester or to write a paper. In addition, several outside speakers spoke during the term on subjects of their own.

Second semester the Thursday afternoon sessions preceded by coffee and spud-nuts, were converted into a colloquium in an attempt to modify the seminar program of the department to suit the needs of more people. A variety of topics were discussed, mostly by members of the Genetics and Zoology Departments.

Instead of giving credit for the departmental colloquium, the individual lab seminars were given credit if desired and were open to any interested students outside the particular group. These groups included microgenetics, Drosophila genetics, immunogenetics, physiology of reproduction and animal breeding, and cytogenetics. The revised program appeared to be a success and the seminars were well attended.

ANIMAL BREEDING

A wide range of the population of animal breeders has been sampled this year. A short time ago we were honored by a visit from DR. KIELANOWSKI, Director of the Institute of Animal Physiology and Nutrition for the Polish Academy of Science at Warsaw, Poland. He outlined current research activities at the Institute.

PAUL HURT, A Colorado State University graduate, joined us after completing a Master's degree at New Mexico A & M. While Paul's primary interest rests in the genetic relationship of feed efficiency and growth rate of swine, he is currently applying the laws of physics to the intriguing problem of how to determine the center of gravity on live pigs.

JIM CHUNG, now of the Medical Genetics Department, turned over the reins for the rat breeding project to JANET COYLE who is a native of Oregon. Recently awarded an M.S. from the University of Minnesota, she will study long-term effects of radiation on the rat.

In January, VERN FELTS terminated a long period of graduate study when he completed his analysis of records of the Wisconsin Sheep Improvement Program. He is continuing at the University as Assistant Professor of Animal Husbandry.

Mr. M. P. MI is a newcomer this year. A Bachelor of Veterinary Science, he is majoring in the area of dairy husbandry and animal breeding.

PROF. MILTON MADSEN of Utah State University has returned to Madison to complete his thesis. Far from being a neophyte, this is Milt's third stay here. His thesis project concerns the productive characters of Western sheep.

WAYNE ROBISON is investigating live animal and carcass measurement associations in swine.

Amidst meetings with the statistics committee, graduate students, correspondence with the Atomic Energy Commission, and preparation for presentation of a paper at the Regional Swine Research meetings at Michigan State University in July, DR. CHAPMAN is serving as Animal Breeding Editor for Journal of Animal Science manuscripts.

--- Curtiss Bailey

CORN GROUP

DR. BRINK participated in two symposia during the past year, one in April sponsored by the Oak Ridge National Laboratory at Gatlinburg, Tennessee, and the other in June at Cold Spring Harbor, New York. The program at Gatlinburg was entitled "Genetic approaches to somatic cell variation." Dr. Brink reviewed the Wisconsin investigations on variegated pericarp in maize in relation to this general topic. The Cold Spring Harbor symposium was concerned with "Exchange of genetic material," and the title of the paper presented was "Paramutation involving the R locus in maize." (Paramutation is the term being applied to the invariably occurring change in pigment-producing action of R^r , a gene conditioning aleurone and plant color, when R^r is made heterozygous with stippled (R^{st}) or marbled (R^{mb}).

ELWIN ORTON is studying possible position effects of Modulator on chromosome 1 of maize and is studying back mutations of P^{RR} to P^{VV} .

H. B. COOPER is continuing the study of the effect of r^g , r^r (mutant from R^r), and r^r (standard allele) on $R^{r:1st}$ in respect to restoring normal pigment production by $R^{r:1st}$. Second generation reversion studies also are now in progress. He is also testing the possible effect of r^g on R^r in heterozygotes. Preliminary observations suggest that r^g in such heterozygotes enhances the pigment-producing action of R^r .

BRUCE ASHMAN will complete his studies this season on "light stippled" (R^{1st}). He has shown that the R^{1st} phenotype results from the action of a linked modifier on R^{st} expression. This modifier was shown to be located about six crossover units distal to the R locus.

IRWIN GREENBLATT is continuing the linkage studies of transposed Modulator in the red and light variegated sectors of twin spots. Preliminary data suggest that the Modulator element transposes to the same locus in both the red and light variegated sectors in a given twin spot. However, sample sizes in the linkage tests were small and are now being enlarged. He is also continuing his studies of Diffuse, a fourth chromosome gene inhibiting pericarp pigment production irregularly. Besides expecting a fourth member to his household, he also passed his second language exam--German.

WILLEM WEYERS is continuing his studies on the paramutagenic effect of marbled (R^{mb}) on R^r in heterozygotes.

IRMGARD MESSMER completed her M.S. last summer, and is now teaching at the University of Western Ontario, London, Canada.

JERRY KERMICLE is undertaking new studies on the partial reversion of $R^{r:st}$, the modified form of R^r derived from $R^r R^{st}$ heterozygotes, toward the level of pigment-producing action characteristic of standard R^r .

A new addition to the corn genetics group is KENNETH S. MCWHIRTER of Grafton, New South Wales, Australia, who comes to the University of Wisconsin on a Sir Benjamin Fuller Research Scholarship. McWhirter is a graduate of Sydney University.

Another new addition to the corn group is DOUGLAS F. BROWN, who holds a Bachelor's and a Master's degree from the University of Saskatchewan, Saskatoon, Canada. Brown has been awarded a WARF Fellowship for study at Wisconsin.

CYTOLOGY GROUP

DR. R. W. HOUGAS, Director of the Inter-regional Potato Station, Sturgeon Bay, has been successful in inducing haploidy in the commercial potato. Dr. Hougas and Dr. Peloquin have contributed four papers on the potential and utility of these haploids. Dr. Hougas is also a co-author of several other papers this past year. DR. S. J. PELOQUIN, Cytogeneticist for the U.S.D.A., has also accumulated a vast amount of data on the genetics of self-incompatibility in the diploid Solanums.

DR. D. C. COOPER, despite his acting as an Examiner and Reader of three Ph.D. theses from foreign universities this year, has managed to contribute immensely to our group. He is a co-author of several papers and has also collected more data on his original cytoembryological studies of apomictic Hieracium and the nature of albinism in various plants.

JIM HOLLENBACK--the so-called 'Holly'--is very busy applying in vitro techniques to overcome seed failure in several interspecific Solanum crosses. He also combines his studies on the initiation and promotion of flowering in certain spuds with the task of indispensable photographer and cook of the group.

S. RAMANUJAM--the 'Rock'--is a man of diversified talents. He is a keen student of human physiology and has travelled far in his researches. His varied interests range from embryo culture to natural beauty. As a matter of fact, he has been so busy that the writer does not quite know what to mention in his list of accomplishments.

DR. V. R. DNYANSAGAR--nicknamed 'Sugar'--joined the group in October, on a scholarship sponsored by the Government of India to do his graduate work under Dr. Cooper. He is already busy in various problems concerning the genus Solanum. He comforts his lonely hours with 'pious' thoughts about his wife.

MARTIN CIPAR--the 'Gem'--unfortunately left us in May due to ill health but had recuperated sufficiently by December to get married to a superior phenotype. They are happily anticipating an F_1 and plan to rejoin us very soon.

NELSON ESTRADA departed for his native Columbia in October after completing his M.S. degree. He is at present deeply immersed in applying various techniques for breeding potatoes resistant to different diseases.

JOHN LEE, having received his Ph.D., left the group for his native Korea.

STEVE TAKATS completed his Ph.D. and is now a rich post-doctorate fellow at Columbia University.

MAC MAGOON collaborated with Drs. Cooper and Hougas on six papers concerned with the cytogenetics of potato.

Solanum seminar under the leadership of Dr. G. H. RIEMAN was a great success. 'Rump' sessions following each seminar were often so hot that people occasionally fell off their chairs.

Visitors of the lab included Drs. Mahra, Swanson, Ieland, Motto, Kerr, Wernimont, Stevenson, Wetter, Korn and Callan.

DROSOPHILA LAB

Between frequent trips around the country, as well as television and Congressional appearances as an authority on the genetic hazards of radiation, Dr. CROW still manages to accomplish a host of things in the lab. It's a mystery as to how he does it all; his activities are so well known that there is no need to mention them here.

Dr. Crow is so famous that people come from far and wide to work in his laboratory. There is Yuichiro Hiraizumi of Odate, Akita, Japan, who is studying lethals and semi-lethals in natural populations, as well as the now notorious "segregation-distorter" gene, which he discovered. He has an M.A. from Hokkaido University, where he studied with Professor Matsuura. "Yeech's" wife and son have remained in Japan, but he is hoping to invite them here for next year.

MINEKE DOORMAN, our charming little Dutch girl, came to Madison last September with her husband, Job Doorman, who is teaching in the Mathematics Department. Between numerous social engagements, Mineke works in the lab as Dr. Crow's right hand girl, changing stocks and making crosses, thus aiding in the increase of the over-all fly population.

Also imparting a somewhat "international" air to the laboratory are three fugitives from Brooklyn, who had trouble getting passports, but who finally managed to sneak across the border, fly swatter in hand.

One of the Brooklynites is IRIS SANDLER, who is now in the process of making up a compound X-chromosome and is doing further studies on X-4 translocations. So you see that Iris is the cytogeneticist of the lab. Apparently she has decided that raising a baby might be more fun than bringing up fruit flies.

Her husband, Dr. LARRY SANDLER, received his Ph.D. from Missouri and worked at Oak Ridge before coming out to Madison in September. Larry is studying a Madison population of *Drosophila* and has completed a paper, with Iris and Yeech, on the cytogenetic basis of segregation-distorter.

RAYLA GREENBERG, who received her B.S. from Brooklyn College, is working on a study of the effects of radiation induced lethals and detrimental in heterozygotes. She has just completed her Master's degree in zoology.

ELAINE JOHANNSEN, also a teaching assistant in zoology, is studying gene frequency changes in populations heterozygous for some lethals that have been picked up by Yeech in natural populations. By the way, for some poorly understood reason, Elaine seems to display a heterozygous affinity not only for the *Drosophila* lab, but for the immunogenetics lab, as well.

The linguist of the group, LARRY FRIEDMAN, decided to forsake fly counting this semester for a teaching position at the University of Wisconsin in Milwaukee. He will return this summer to continue his study of radiation effects on sterility and longevity.

-- Rayla Greenberg

IMMUNOGENETICS

Having relieved Guernseys, Jerseys, Herefords, etc. of gallons of blood, JASH PATEL returned to India in May with his Ph.D. to renew acquaintance with his family and to bleed Asiatic cattle. Here for $4\frac{1}{2}$ years, Jash learned that, at least with respect to a misbehaving antigen called "J" nature can be largely inscrutable.

Having relieved Oscar Mayer Company of many thymi, ART MANGE left in July with his M.S. and his rabbit tie-down thongs to study the genetics of the Hutterites. Art learned that, at least with respect to the antigenicity of calf thymus chromosomes, nature can be largely inscrutable.

DON SHAW is hoping to scrutinize the exact nature of the secondary death following lethal X-irradiation of pigeons when a second life is provided by timely transplantation of bone marrow. Since these experiments often conflict with arranging and participating in social events, Don's pigeons can look forward to cat-like nine lives.

JOAN OLSEN is scrutinizing the inheritance of serum proteins in doves between trips to Chicago and New York. The National Science Foundation has renewed Joan's fellowship, which, however, does not make her doves capable of contributing to science more than a drop or two of blood at a time.

JAN BECKSTROM'S scrutinizing is largely inscrutable, but this able technician is trying to teach us manners. This attempt has been largely unsuccessful through no fault of Jan. You should see her in her new chemise.

PATRICK MICHAEL CONNEALLY came from Ballygar, County Galloway, Ireland in February. Mike is learning to feed J-substance to a digital computer, while causing a lighted cigarette to disappear into someone's new handkerchief, and explaining that in a family of two the probability of a boy having a brother is not $1/2$ or $1/4$ but $1/3$.

SURINDER DATTA came in February from the Indian Veterinary Research Institute, Izatnagar, to acquire some more knowledge of genetics. Among other things here, he is scrutinizing possible differences in serological reactivity of specificities when these occur in different alleles.

ALF and ROSEL TOLLE came from the University of Göttingen in March to study immunogenetics. Alf is trying to produce an anti-J immune serum (heretofore undemonstrable) by using J-positive saliva of rabbits and cows as the immunizing agent. He is also adept at acquiring parking tickets. Rosel is making species-specific antibodies with Dr. Irwin's doves; she is also adept at talking the cops out of Alf's parking violations.

ALEC BEDNEKOFF sneaks over from the biochemistry building where he is analyzing the J-substance. He deposits some samples for Jan to assay and sneaks back.

CHARLIE KIDDY sneaks in from physiology of reproduction, spins a centrifuge and sneaks back.

JOE SCHACKELMAN keeps us in clean glassware, fresh coffee, and appropriately isotonic saline. He will make his bride a fine husband.

BILL STONE actively oversees this procession of scrutiny and somehow finds time to do much more. His pet projects at present are preparing an exhibit on cattle blood grouping for the 10th International Congress of Genetics, and developing procedures for the demonstration of non-lysable cells which might be manifestations of somatic mutations. Bill spent August 1957 in Europe where he delivered two papers before the 6th Congress of the European Society of Hematology in Copenhagen: one on seasonal variation of isoantibodies in man (with Don Shaw), and the other on an attempt to produce hemolytic disease in cattle (with Charlie Kiddy, Dr. Tyler and Dr. Casida).

THE GENETICS RESEARCH LABORATORY is spelled out in bold aluminum block letters over the door of a brand new building whose construction was scrutinized daily by Dr. Irwin. Finished finally in January, our birds and rabbits were moved to the bright clean quarters from the basement of the Stock Pavilion, from the basement of the Old Dairy Barn, and from the attic of the Horse Barn. Most of us, in deference to tradition, call this new barn, THE BARN, overruling an attempt to dub it GERELA. Mike calls it THE BERN.

-- Art Mange

THE DEPARTMENT OF MEDICAL GENETICS

A large step in the broadening of genetic research and training on the Wisconsin campus was taken with the establishment of a Department of Medical Genetics in the Medical School. The initial appointments in this department were Professor Joshua Lederberg as chairman, and Assistant Professor Newton E. Morton. Through their joint appointments in the Genetics Department, the two departments will work in close cooperation.

The formal introduction of teaching of genetics to medical students will take effect with a one hour per week series of lectures to be given in the second year of the medical curriculum. Pre-medical students will also be encouraged to take genetics as undergraduates.

For the time being, the new department will continue to be housed partly in the Genetics Building (Departmental office and Professor Lederberg's laboratory) and partly in the new Bardeen Laboratories on the medical campus (Professor Morton). They will continue their research programs on the genetics of microorganisms and of man, respectively. The foundations are now (July 1958) being poured for a new research addition to the Medical School, and when this is complete (about fall 1959) the Medical Genetics Department will occupy consolidated quarters on the first floor, along Linden Drive.

The two genetics departments were co-sponsors of a symposium on genetics in medical research, held at Madison April 8-10, 1958. The best impression of the symposium, and its international character, is given by the main program which follows.

SYMPOSIUM ON GENETICS IN MEDICAL RESEARCH

Tuesday, April 8

- 9:00 President E. B. Fred. Welcome
- 9:20 H. Koprowski, U.S.A. Importance of genetics of mammalian viruses in medical research
- 10:30 B. A. D. Stocker, England. Bacterial genetics and infectious diseases
- 1:30 Group discussions
- 3:30 K. C. Atwood, U.S.A. The cellular lesion in radiation injury
- 8:00 Public lecture. C. Stern, U.S.A. The chromosomes of man

Wednesday, April 9

- 9:00 G. Pontecorvo, Scotland. The genetics of somatic cells
- 10:30 R. Ceppellini, Italy. Physiological genetics of erythrocyte antigens
- 1:30 Group discussions
- 3:30 R. Owen, U.S.A. Transplantation and acquired tolerance
- 7:00 Evening banquet. J. Neel, U.S.A. Genes and hemoglobins

Thursday, April 10

- 9:00 J. B. Graham, U.S.A. Genetic control of blood coagulation processes
- 10:30 A. G. Steinberg, U.S.A. Methodology in human genetics
- 1:30 Panel: Selective factors in the ABO polymorphism
W.C. Boyd, U.S.A.; C. A. Clarke, England; P. Levine, U.S.A.;
H. B. Glass, U.S.A.; E. Matsunaga, Japan.
- 3:30 Group discussions

About 150 delegates, mainly from medical schools about the country, travelled to Madison for the meeting, which was financed in large part by the National Heart Institute. The collected papers will be published as a supplement to the Jour. of Medical Education and also to the Amer. Jour. of Human Genetics.

-- Esther Lederberg

MICROBIAL GENETICS

Comings and goings have been the order of the day in microbial genetics lab.

On the outgoing side of the docket, TETSUO IINO was the most recent departee. After unentangling the genetics of phase variation of Salmonella, and with a Ph.D. under his belt, Tetsuo decided that the long way home to Japan looked exciting. He is now in Stocker's (a 1952 visitor) lab at the Lister Institute, London, and will soon move on to Stockholm and Paris.

BOB WRIGHT received his degree last summer on cytoplasmic inheritance in yeast. Bob, Mari and Astri likewise fancied the round-about route to Australia, beginning at Mari's ancestral Norway and continuing through Europe with several stops, arriving in Australia in time for Christmas. Three weeks later, wanderlust hustled them off to France where Bob is researching in Ephrussi's lab. P.S. Mari feverishly finished her Master's thesis before leaving Madison, while a metal plate replaced the hole in Bob's head.

We regretfully bid farewells to three post docs this year. In November WOLFRAM HEUMANN, with Barbara and Irene, returned to Germany. Wolfram worked on genetic evidence of sexuality in the star forming bacteria. FRITS and IDA ORSKOV, after sero-typing and crossing hundreds--thousands(?)--of colis, sailed for Copenhagen shortly after Thanksgiving. Both families recently surprised us by announcing the arrival of F+ (σ) recombinants--good work!

The returnees and newcomers include JOSH AND ESTHER, who spent three months travelling and teaching in Australia, returning to Madison in late November with tall tales and many color slides of their journeys through Hawaii, Fiji, India, Italy, etc., en route to and from. They will be Europe bound again this summer to catch the Stockholm meetings. Josh presented a Harvey lecture in December on the versatility of bacterial reproduction, and blasted microbial genetics sky high in June by dueting a cool version of "Moondust" with Dean Cowie at the Space Biology Symposium in Washington.

HIROTA arrived from Osaka, Japan in time for second semester. He is presently inducing mating-type variation in coli, while trying to comprehend these peculiar Americans.

LUCA CAVALLI, from the University of Pavia, Italy, is brightening the lab for a few months carrying on interrupted mating experiments with Josh and Esther.

CONNIE THOMAS is lending an efficient hand as new "chief" of the lab and also working with Esther on lysogeny.

RUTH ZLOTEN KORMAN is due back from Elmira College in June to continue with Staph lysogeny and genetics while managing 6 month old Arona.

As for the less fortunate stay-at-homers: ALAN RICHTER recently had prelims and is continuing his work on mating types in coli. ANN COOK busies herself with paper doll doodads to code her lactose recons. KITTY DUBIELZIG became Mrs. Bruce Duma last August.

The lab will be represented in Montreal this summer by Hirota, Alan, and Esther, who are giving papers.

Visitors this year included A. Campbell, A. Hershey, D. Cowie, S. Lederberg, N. J. Scott, plus several symposium guests.

PHYSIOLOGY OF REPRODUCTION

CHARLES KIDDY is completing studies on the possible role of immunological mechanisms as causes of fertilization failure and embryonic death in cattle and rabbits. Charlie hopes to take his finals in July as he is scheduled to begin work in the Breeding, Feeding & Management Division of the Dairy Cattle Research Branch, U.S.D.A., Beltsville, Maryland on September 1, 1958.

WARREN FOOTE passed his finals in June and left for the "West." His study concerned reproduction in sheep as affected by heredity and sequence of feeding levels.

HAROLD SPIES is continuing his study on the mechanisms for corpus luteum maintenance in swine and the maintenance of pregnancy in the ovariectomized gilt by the administration of exogenous hormones.

The progesterone content of the corpus luteum is being explored by ROBERT LOY, DARRELL FOOTE and ROBERT ZIMBELMAN. They are making comparisons of progesterone content in the corpus luteum of repeat breeder heifers as compared to virgin heifers as well as the corpus luteum of various stage of pregnancy. Loy is also experimenting with a method of analyzing progesterone content in the blood of cattle, while Zimbelman is studying some of the other characteristics of the corpus luteum of cattle in early pregnancy.

DWANE ZIMMERMAN is continuing his studies of the effects of various feeding levels on reproductive phenomena in swine.

ALAN MENGE and STAN MARES received M.S. degrees in January and are analyzing data pertaining to reproductive phenomena in dairy cattle. Alan had taken a three month leave to fulfill his military obligation and returned in June. Stan is beginning work on sperm fractionation as affecting fertility.

DR. CASIDA is continuing his busy schedule of assisting graduate students, instruction, and solving the many other numerous problems. He did manage a short vacation which included attending the Dairy Science meetings at Raleigh, N.C.

Boy babies seem to have had an edge over the girls in this lab lately, Darrell, Charlie, Harold and Dwane being the proud papas of boys while Al is the proud papa of a baby girl.

-- Stan Mares

POTATO LAB

DON YOUNG received his Ph.D. last spring and has completed his first year of service as a Research Officer with the Canadian Department of Agriculture, Experimental Farms Service at Fredericton, New Brunswick. Don is doing research on the inheritance of disease resistance in the potato. He attended the Potato Association of America meeting last December at Washington, D. C. where he presented his doctorate thesis dealing with the nature of a mycorrhiza-like mycelium in potato tubers.

FRANCISCO CLAVER returned to the University of LaPlata, Argentina in March after working a year with Cooper, Hildebrandt and Rieman on the potato mycorrhiza problem. Prof. Claver--known as "Mike O'Rhiza" in the potato lab, was successful in growing potato seedlings free from mycorrhiza by means of various antibiotic treatments.

HARI KISHORE from the Central Potato Research Station, Patna, India, arrived last fall. "Harry" is working on the inheritance of immunity to virus X in the potato.

DON KICHEFSKI made a trip to Fairhope, Alabama this spring to make virus readings on potato breeding stocks.

LOU REEVE from the University of Minnesota has been with the potato breeding project during the past year. Lou plans to establish a business at Osceola, Wisconsin in the near future.

MUHAMMAD YAQUB comes from the Punjab Agricultural College, Lyallpur, West Pakistan where he has been doing potato breeding. Muhammad has a Rockefeller Foundation scholarship. He has been with us for one semester and plans to work on disease resistance.

CHARLES CUNNINGHAM from the University of Maine joined our group last summer. His research program is supported by the Red Dot Foods, Inc. Charles' Ph.D. problem deals with the inheritance of potato chip quality. He is associated with Drs. F. J. Stevenson and Jim Weber in a Red Dot Foods breeding program designed to develop improved varieties for potato chips.

FUR ANIMAL RESEARCH

The fur animal research project (cooperating departments of Biochemistry, Veterinary Science and Genetics) again held their Biennial Mink Farmers Summer School. The school was held on August 19 and 20, 1957 and included speeches by workers on nutrition, disease, reproduction and genetics of mink. Dr. Shackelford gave talks on "Genetics of the mink" and the "Physiology of reproduction in the mink" while Bob Cochrane talked on some of the research on reproduction done with mink here at Madison. At the festivities accompanying the summer school, Dr. Shackelford was bestowed with the great honor from the sovereign state of Kentucky--namely that of being made a Kentucky Colonel, yes suh!

The work in the lab has been more or less following along the same lines as previously. Dr. Shackelford is continuing his studies on linkages among the numerous known genes of the mink, and his work on elucidating the relationship of two genes going into the make-up of the two "beige" phenotypes presently in vogue in the mink industry. Some of Dr. Shackelford's work is even carrying over into his hobbies for now he is in the process of studying the inheritance of coat color in canaries.

BOB COCHRANE is continuing his study of the mechanism of the phenomenon of "delayed implantation" which occurs in many of the fur animals. He has also been doing some preliminary work on the effects of gonad transplantation on the mink with special relationship to the "tolerance" phenomenon.

-- Bob Cochrane

ENTRIES IN THE HERD BOOK

Darrell	David Foote, July 22, 1958
Barbara	
Irwin	Judah Paul Greenblatt, July 26, 1958
Gloria	
Wolfram	Keiko Heumann, Winter 1958
Barbara	
Charles	Christopher Jay Kiddy, July 3, 1958
Beverly	
Jerry	Arona Korman, Spring 1958
Ruth	
Alan	Lynn Menge, May 28, 1958
Ruth	
Frits	Claus Orskov, Winter 1958
Ida	
Clarence	Sandra Elizabeth Rohovetz, March 12, 1958
Bette	
Harold	Russell Lee Spies, July 11, 1958
Jean	
Dwane	Clay Robert Zimmerman, May 3, 1958
Mary	

SEX LINKAGE

Bruce Dunn and Kitty Dubielzig
 Stanley Mares and Elizabeth Novak
 Martin Cipar and Bobbi Cramer

RECENT ADVANCES IN GENETICS

FINALS

Jashbhai Patel
 Charles Kiddy
 Warren Foote
 Robert Wright
 Lavern Felts
 Milton Madsen
 S. V. S. Shastry

PRELIMS

Alan Richter
 Elwin Orton

MASTERS

Arthur Mange
 Alan Menge
 Stanley Mares
 S. Ramanujam
 James Hollenback
 Joan Olsen

ACQUIRED CHARACTERS

Janis Beckstrom	BA	Beloit College	Stone
Arthur Broome	PhD	Univ. of Nottingham, England	Casida
Douglas Brown	MS	Univ. of Saskatchewan, Canada	Brink
Luca Cavalli	PhD	Univ. of Pavia, Italy	Lederberg
K. C. Chen	MS	Va. Polytechnic Inst.	Hougas, Cooper
Lauren Christian	BS	Iowa State College, Ames	Chapman, Hauser
Michael Conneally	BS	Ballygar, County Gallway, Ireland	Irwin, Stone
Charles Cunningham	MS	Univ. of Maine	Rieman
Surinder Datta	BVS	Indian Vet. Res. Inst., Izatnagar	Irwin, Stone
V. R. Dryansagar	PhD	Amravah College, India	Cooper
Mineke Doorman	KS	Univ. of Amsterdam	Crow
Y. Hirota	MS	Osaka University, Japan	Lederberg
Hari Kishore	MS	Central Potato Res. Sta., Patna, India	Rieman
F. Kita	BS	Univ. of Hokkaido, Japan	Smith, Cooper
Kenneth McWhirter	BSc	Sydney University, Australia	Brink
M. P. Mi	BVS	Formosa	Chapman, Tyler
Connie Thomas	MS	Dept. of Bacteriology	Lederberg
Alf Tolle	PhD	Univ. of Gottingen	Irwin, Stone
Rosel Tolle	PhD	"	"
Muhammad Yaquub	MS	Punjab Ag. Col., Pakistan	Rieman

TRANSLOCATIONS

Joan Burns	Zoology Department
Jim Chung	Medical Genetics, Univ. of Wisconsin
Francisco Claver	University of LaPlatta, Argentina
Nelson Estrada	Rockefeller Res. Center, Columbia, S. America
Vern Felts	Animal Husbandry Dept., Univ. of Wisconsin
Warren Foote	Utah State University, Logan, Utah
Wolfram Heumann	Braunschweig, Botanical Inst. Germany
Tetsuo Iino	Nat'l Inst. Genetics, Misima, Japan
Charlie Kiddy	Dairy Cattle Res. Branch, USDA, Beltsville, Md.
Milton Madsen	Utah State University, Logan, Utah
Irmgard Messmer	University of Western Ontario, London, Canada
Frits & Ida Orskov	Statenseruminstitut, Copenhagen, Denmark.
Jash Patel	Inst. of Agric., Anand, Bombay State, India.
S. Ramanujam	Indian Agric. Res. Inst., New Delhi, India.
S. V. S. Shastri	Central Rice Res. Inst., Cuttack, Orissa, India.
Alf & Rosel Tolle	Univ. of Gottingen, Germany.
Robert Wright	Dept. Bac., Univ. of Melbourne, Victoria, Australia.
Steve Takats	Brookhaven Nat'l Lab., Upton, L.I., New York

EPILOGUE

We wish to extend our thanks to the people who wrote research reports. Also, for the stencilling and mailing, our thanks to the secretaries: Bette Rohovetz, Nancy Neis and Joan Weidenfeller.

PAST EDITOR'S POST SCRIPT

The Genotype staff could do with a bit more support from its readers. We find it difficult enough to glean information from the segment of our readers presently entrenched within the Departmental walls. And as for the readers no longer in residence at Wisconsin, contact is indeed remote. Who are these readers? What are they doing? When were they here? Where are they now and why don't we hear from them? Well we did hear, and though there were only three letters their quality more than compensated for the lack of quantity.

Dr. J. H. MacGillivray (1925) returned to his work at the Univ. of California at Davis as of August 1957. Dr. MacGillivray spent the preceding year in Taiwan (Formosa) on an I.C.A. contract at National Taiwan Univ. His duties on the island were research and teaching the latest scientific methods in vegetable production. Now back at Davis where he is Professor of Vegetable Crops, he is continuing research on reduction in cost of harvesting vegetables. That is, when Dr. MacGillivray is not spending his time reacquainting himself with seven lively grandchildren. Since this news is already a year old, he may have additional small fries (eight, nine) to occupy his leisure?

Dr. H. R. Albrecht (1938) is presently the Director of the Agricultural Extension Division, Pennsylvania State University. He writes that though he has deviated considerably from his genetic training since he left his position as chairman of the Department of Agronomy at Penn. State, he still enjoys hearing about our activities here. How about letting us hear more about your activities, Dr. Albrecht?

The most interesting item to come our way this past year was a letter which started off this way: "Dear Editor of the Genotype: Maybe a few items regarding the Department's first woman Ph.D. may be of interest. Anyway I am sending same."

The year was 1921, and we are sure there are several readers who will remember when the President of the Univ. of Wisconsin conferred a Doctor of Philosophy degree on Sarah VanHoosen Jones. After graduating Dr. Jones spent several months touring the Orient, then returned to Michigan where she settled on her ancestral farm, Centenary, which has been in the family since 1823. Here at Centenary she put the knowledge obtained at Wisconsin to work breeding purebred Holsteins, and from the record, it was not without success: Premier Michigan Breeder award nine years in succession; and Premier Breeder at the Waterloo Dairy Cattle Congress one year. Dr. Jones did not spend all her time down on the farm, for she was a member of the Governing Body of Michigan State University for 12 years, at the end of which time the University conferred upon her an honorary LLD in 1956. Now that she has retired from active farming she keeps busy working out her family genealogy as well as applying her interest and support to several civic activities.

We think the answer to Dr. Sarah VanHoosen Jones' first sentence is yes, and we are looking forward to receiving additional items from the Department's first woman Ph.D.

-- Don Shaw