

Genotype: "building issue". Issue 45 1962

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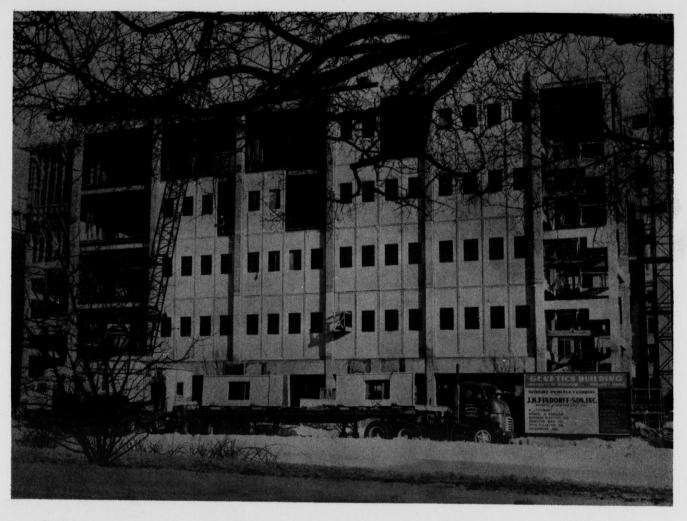
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GENOTYPE

"BUILDING ISSUE"



Construction of the new Genetics Building, directly across from the old building. January 1962

DEPARTMENT OF GENETICS - UNIVERSITY OF WISCONSIN

FROM THE EDITOR'S DESK

As we go to press, the new Genetics Building looks much different than it did when our cover photo was taken. The tree limbs are again bare, but the intervening months have seen the scaffolding disappear, the contractor's sign give way to a blanket of green grass, and the flatbed semi replaced by other trucks unloading mountains of laboratory cabinets and equipment. Soft wall colors blend with attractive tile floors throughout the interior and finishing touches are being put on the wiring, heating and air conditioning systems. Modern functional built-ins line the laboratory walls, and the spacious first-floor library is being finished off with walnut paneling.

So, with one eye cocked at the progress chart, our busy staff looks forward to occupation of the building, hopefully, soon after the year end.

STAFF

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Faculty Advisor..... M. R. Irwin Editor..... Joel Solomon Assistant Editor..... John Fenton

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<u>Dr. James F. Crow</u> - As the man whose (old) picture appears most often in the Capital Times, Dr. Crow is well known to newspaper readers in Madison as he must have looked several years ago. In between trips to "trouble spots" around the country, Dr. Crow manages to squeeze in a few appearances in the laboratory. As chairman of the Medical Genetics department, teacher of courses in genetics, population genetics, medical genetics, and co-author, with Motoo Kimura, of two books on population genetics, Dr. Crow is kept on the run. As a diversion, he's been participating as a violist in several musical performances on campus and in town this year.

Dr. Larry Sandler - Larry spent the year, research-wise, continuing to peer into the mysteries of SD, with particular reference to modifiers of SD existing on the other chromosomes. He's also succeeded in constructing some complex X chromosomes. On the teaching side, the courses in chromosome behavior and advanced genetics were a smash success. Larry has now taken a position on the faculty at the University of Washington, Seattle, where he and his family moved this summer. Also transferring to Washington were John Merriam, graduate student, and Averill Rosenfeld, project assistant.

<u>Dr. Seymour Abrahamson</u> - In the winter of this year, Seymour <u>et al.</u> moved from the medical genetics building over to Birge Hall, where they are now located on the fourth floor in a room which affords a magnificant view of the treetops of Madison south of University Avenue. Seymour continues to work on the possible mechanisms of the sex ratio shift in Drosophila which occurs after mating irradiated males to attached X females. The basic interest of this work resides in possible repair mechanisms. Seymour has been teaching courses in zoology and genetics and is busy designing a lab for the new zoology building. In August the Abrahamsons traveled in Europe, where Seymour attended meetings in Harrogate, England, and Leyden, Holland.

Elaine and Arthur Mange left Madison for Western Reserve University in Cleveland, where Arthur has been doing some teaching in genetics and population genetics. Arthur's thesis on the Hutterites is nearly complete now, and he will take his finals in October, 1962. The Manges have a little girl now, Jenifer Ellen, who was born in June.

Dr. Lawrence Friedman - After spending a year as a post-doctoral fellow here in Madison, Larry became an Assistant Professor in Biology at Hiram College in Ohio, teaching several courses in addition to genetics. Larry and Jan's new son, Michael Adam, arrived December 31, 1961, just in time to serve as an additional tax deduction. The Friedman family spent the summer of 1962 back in Madison, where Larry carried out a large experiment on the detrimental to lethal load ratio of X-ray induced mutations in spermatogonia. <u>Dr. Robert Baumiller</u>, having received his doctorate at St. Louis University, spent a year here on a post-doctoral fellowship, continuing his investigations of heterozygous effects of X-ray induced mutations on early stages of development. He also spent some time looking for the possible mutagenicity of certain compounds which have been used as sterilants of insects. This August Bob left Madison to continue his theological studies at Woodstock College in Maryland.

<u>Rayla Temin</u>, nee Greenberg, became Mrs. Temin in May, 1962. Rayla took her prelims in April and is, at present, organizing data on viability and sterility loads in natural populations of Drosophila. The data has now been punched onto IBM cards and will be fed into a computer to see what it all reveals. Rayla hopes to complete her thesis sometime during this academic year.

Yong Chung hails from Seoul, Korea, where he was a teacher. His first year here was occupied primarily with coursework. This summer he began a research project on the study of gene heterosis in different backgrounds.

Takeo Maruyama from Kyoto, Japan, joined our group in August, 1961, after having spent the previous year at the University of Missouri. His research is concerned with competition among various lethal chromosomes extracted from a population cage. Takeo passed the German language exam last May.

<u>Wai Juan Tan</u>, from Taipei, Formosa, has a bent for mathematics and population genetics as well as photography of people and places in this country. This term Mr. Tan changed his major to mathematics.

Thomas Mattson completed his master's degree this summer, his thesis being concerned with the combined effects on viability of several individual mutations. This year, Tom will be teaching in the biology department at Carleton College in Minnesota.

<u>Constance Thomas</u> As our project assistant in charge of keeping stocks and running several experiments, Connie has contributed to the elegance of the laboratory with her "home constructed" stock trays built with redwood, as well as with some fancy new population cages. During the early part of the year Connie was concerned with recombination in irradiated SD males, providing further evidence that SD action is due to breakage. The results of this study appear in a paper by Crow, Thomas and Sandler in the August issue (1962) of PNAS.

Robert Coifman, who is pursuing studies for an M.D. as well as a Ph.D., has been working on the heterozygous effects of X-ray induced mutations on the entire life cycle of Drosophila, using a clever scheme for keeping the mutations continuously heterozygous.

Jerry Head has been looking for effects of SD on females existing in population cages containing SD chromosomes in both sexes, but acting, ordinarily, only in males. Some interesting results have been found.

Etan Markowitz, who graduated from the California Institute of Technology this June, joined the group this summer. He started out with a bang by enrolling in an IBM programming course.

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Joseph Felsenstein, a junior at the University, carried out some experiments with Drosophila during the year, was concerned with simulating a problem in quantitative genetics on a computer this summer.

<u>Dr. Helen Meyer</u> joined the department this fall, after having spent many years doing research in radiation genetics in Dr. Muller's lab at the University of Indiana. She plans to continue some work on somatic effects of radiation in Drosophila, as well as to participate in several new projects.

<u>Carter Deniston</u>, a new graduate student in the department, having been trained in anthropology. He will work on protein polymorphisms in Drosophila.

<u>Pierre Hart</u>, who received his master's degree here a few years ago, has now returned to the University, after working for a while in Berea, Kentucky as a cytologist on forestry research.

<u>Dr. John Opitz</u> has also joined us this fall from the Pediatrics Department as a post-doctoral fellow interested in the medical aspects of genetics. John has been instrumental in arranging weekly seminars in which clinical genetic material is displayed and discussed.

From Serology, <u>Newt</u> and <u>Nancy Morton</u> left us this year for warmer climes. Newt has undertaken an immense study of selection pressures among the natives of Northern Brazil. They expect to be in Sao Paulo for a year before moving on to the University of Hawaii where Newt will assume his new responsibilities as Chairman of the Genetics Department. All of us wish them well and are pleased to pass on the news that Nancy is expecting her fifth child at the moment. <u>Norikazu Yasuda</u>, erstwhile population geneticist, is also with the Mortons and will accompany them to Hawaii where he will complete his studies.

Also among the missing are Jean Marsh, who has moved just across the alley to the other side of the tracks as a research associate in the Pediatrics Department. <u>Peter Hoesli</u> completed his post-doctoral training at Wisconsin and is presently en route to Switzerland by way of New York. <u>Italo Barrai</u> returned to Italy in April after a fruitful year in the States studying population problems and American women. There seems to be little doubt about his favorite of the two.

Remember the old mnemonic for recalling the names of the cranial nerves? It ends "...a Finn and German viewed a hop." We have the living image right here with the marriage of <u>Dr. Eeva Therman</u> to <u>Dr. Patau</u> last year. We are actually stretching the point a bit since Dr. Patau is really from Austria.

<u>Dr. Bob DeMars</u> is working feverishly these days. So would you, if you spent 19 hours daily in the 37C incubator. We are not exactly sure what he is doing in there--he just sits in the corner on the nest. <u>Jerry Gorman</u> has passed her prelims and needs only to finish her thesis before leaving with husband John. Jim <u>Russell</u>, our red-headed full-time technician, has finally seen the light and enrolled as a graduate student, continuing some studies on viral DNA. <u>Eugen Rosenkrantz</u> is continuing his work with bacteriophage while day-dreaming about leaving Science for medicine. Something to do with money or such-like. <u>Dr. Oliver Smithies</u> and his energetic staff are pursuing the role of the haptoglobins as a model for gene action and evolution. <u>Dr. Walt Nance</u>, a post-doc with an M.D., looking forward to a Ph.D., has undertaken the analysis of the 7000 serums collected by the Brazil study. They have already turned up some fascinating specimens and have only 6000 more to do.

<u>Dr. Charles Cotterman</u> has returned from five weeks in Brazil assisting with the establishment of the selection project and collecting seeds along the way. He is now preparing a course within the department on general biological applications of statistics. <u>Joel Solomon</u> has passed his prelims and looks forward to graduation.

PHYSIOLOGY OF REPRODUCTION

Stan Mares has departed the fold, as has <u>Bob Bellows</u>. Stan completed his work on progesterone production by corpora lutea and has accepted a position with G. D. Searle in Chicago. He and Liz are proud parents again--but this time a "boy", by way of change. Bob finished "flushing" sheep and rats and has gone west to the Miles City, Montana, Range Experiment Station to do research with beef cattle there. That is back close to home for him and Laurie.

<u>Mark Gardner</u> finished his Master's work on swine corpora lutea and is currently employed by Tri-State Breeders Co-op as head of their swine insemination program. He and Wilma are proud parents of twins.

Back to the hills of Alberta, Canada went Lamont (Monty) Smith and family, after he completed his Master's in June. Monty's work was related to shortening the calving interval in beef cattle. Instead, he shortened his stay at Wisconsin, and has accepted a position with the Upjohn Company.

<u>Bill Collins</u> and <u>Keith Inskeep</u> are madly treating heifers to try to fire up their corpora lutea and produce more progesterone. In the process of watching his own weight, Bill has grown so sensitive that he had to buy a new analytical balance.

<u>Fred Stormshak</u>, between dates and after much delay due to gas chromatography, has completed analysis of progesterone levels in sheep blood, while Keith has completed analysis of progesterone levels in sheep corpora lutea. They still hope that the two may be related. Rumor is that Fred may confer a Mrs. degree in the near future.

<u>A. P. Labhseiwar</u> has knocked off German and is still trying to assay cow pituitaries in rats. In between times, he has presented a paper at the Dairy Science meetings at Beltsville, Maryland and toured some more of our country.

<u>Roy Kirkpatrick</u> arrived from West Virginia in February and went right to work synchronizing estrus in swine. He is now assaying swine pituitaries in rats. Roy and Thelma welcomed a new daughter, Tammy, soon after they arrived. Since Roy makes the third Mountain Stater in the lab, we are feeling a bit overrun by hillbillies.

Borden Howland arrived from Massachusetts last fall and worked on sheep projects with Bob and Keith. Borden is quite accomplished at making unorthodox pipe mixtures for Fred and Bill to sample. He is also quite a duck hunter and ducks are his favorite topic of conversation. Dr. John Lynn, our "big brother", is studying various things from electric shocks to Russian. He comes to the lab as a post-doctoral fellow and was formerly the village vet of Albany, Wisconsin. John, besides being our best morale builder, is also the father of 4 children.

Dr. Casida has stopped drinking coffee, but otherwise continues to be busy as usual. He has purchased some new equipment to make our research work easier and more accurate, including a refrigerated centrifuge.

Our lab is happy to welcome three newcomers to the fold this fall - Jim Lauderdale, Ted Wickersham and Howard Brinkley. Jim is embarking on the study of the pituitary and ovarian relationships in post-partum sows. Ted is busy studying bioassay of gonadotropic hormone. Howard, a post-doctoral trainee in Endocrinology, is investigating the compensatory hypertrophy of swine ovary and swine corpora lutea.

IMMUNOGENETICS - BLOOD LAB

Dr. Irwin has spent the year being the major source of inspiration behind the planning and supervision of construction of the new Genetics Building. Besides watching the workmen from his office window and peeking in the lab in which his graduate students are working, Dr. Irwin continues studying the interrelationships of the cellular antigens of pigeon-dove hybrid substances. In addition, he attended the Oak Ridge Biological Laboratory Symposium at Gatlinburg, Tenn. and gave a paper this fall at the International Conference on Taxonomic Biochemistry, Physiology, and Serology, University of Kansas, called "Blood groups among vertebrates". We all look forward to receiving Dr. Irwin's out-of-town golf scores.

<u>Bill Stone</u> gave a paper at the Second International Conference of Human Genetics, Italy, in September, 1961, as well as a seminar at the Institute of Genetics, University of Milan, Italy, and had a wonderful time. Coming back to reality, first semester, Bill, Dr. Patras, and Dr. Irwin initiated Wisconsin's first course in "Immunogenetics" covering mammalian blood groups and other immune phenomena which relate to genetic analysis. In the spring Bill occupied himself with writing a Genetics text for Genetics-6, co-authoring with Carl Swanson of John Hopkins. In addition, he was busy lecturing for an L & S course called Contemporary Trends, goading graduate students, and playing handball. More recently he has begun commuting between Madison and Knoxville, Tennessee, in connection with a joint project with the University of Tennessee on the effects of irradiation on erythrocyte chimerism and immunologic tolerance in cattle twins.

<u>Becca Patras</u> gave the first few lectures in "Immunogenetics" (1961-62) while Bill was still waltzing around Europe, and took charge of the laboratory portion of the course. After that her activities centered about DEAE-columns, cattle transferrins, and making work for the dish washers, in hopes of finishing up by June first. Since May 25, Becca has been known as Mrs. Sidney Fleischer. She and her husband spent the summer in Southern California at the City of Hope. This fall they are both back in Madison working at the Enzyme Institute.

<u>Mike</u> <u>Conneally</u> completed his Fh.D. on statistical studies of cattle blood groups with Drs. Morton and Stone; has accepted a post-doctoral fellowship at Western Reserve with Dr. A. Steinberg. Surinder Datta finished his prelims and is completing his project on cattle serum transferrins in hopes of having his thesis completed soon. Currently, Datta hopes to get a job at home in India or a post-doctoral fellowship here in the U.S. As senior member in the lab, he is a great help to newcomers.

Audrey Fregin has taken the place of Jan Friedman as project assistant under Dr. Stone. Audrey is from Randall, Minnesota and obtained her B.S. at Yankton College in South Dakota. Audrey likes Madison, smokes cigarettes, drinks coffee, and works hard.

<u>Alex Bednekoff</u> finished up his Ph.D. thesis on the biochemistry of cattle-J substance and related antigens of other species and has taken a position at South Dakota State College. We all miss Alex as a useful link with Link's Lab and the Biochemistry Department when it comes to borrowing equipment or getting things repaired.

<u>Dr. Takeshi Tomita</u> has been with us this year from Nagoya University, Japan, where he did his doctorate on the distribution of horse blood groups. Here, he has been working on the effects of enzymes on bovine antigens and the kinetics of hemolysis with homozygous and heterozygous genotypes. Completing this summer, he has now returned to Japan.

John Fenton (Jay F.), coming from Cornell University, is continuing the project on "Immunofertility." The big question is do sperm have a haploid phenotype as expressed by their antigenic components. Since Mr. Fenton's data at present looks like New York stock quotations, it looks like he might be hanging around Madison for quite some time, at least as long as the bull spermatozoa hold out.

<u>Cornelia</u> <u>Mack</u> has begun her Master's research on a project involving the production of antisera against mammalian chromosomes. Cornelia is a graduate of Wellesley College, maintains her office in Medical Genetics and alternates between her bicycle and a grey Mercedes in riding around campus. Some class!

Sharon Desborough surrendered her position this fall as Dr. Irwin's project assistant in order to become a full-time graduate student. Sharon has been busy studying the serum proteins of hybrids and backcross hybrids between humulic and wing doves. Currently, she has been having a great deal of fun playing around with her home-made "do it yourself" electrophoresis apparatus and the new "wonder gadget." She also would like to establish an annual beer party custom.

Martin LaBar is nailing down his M.S. on the pigeon-dove hybrid substances. So far he has found five of these and is waiting for the birds to make new contributions. Along this line, the transfer of most of the pigeons to Don Shaw's radiology quarters has given Martin's pigeon mating bureau new worlds to conquer. Martin is also glad to report that he is finally finished with classes, leaving him more time to devote to his projects. As official barber for the blood lab, Martin is trying to help put the local union out of business, at least in a small way.

Marge (Scott) Osterhoudt spent the spring getting ready for May 26 in Lynn, Massachusetts, where she married Hans Osterhoudt, a grad student in chemistry. Other than these preparations, Marge was president of the Grad Club and has been busy around the lab, diabolically drawing blood with a Pasteur pipette from dove embryos. Judy (Webster) Underkofler is an experienced Matron of Honor from Marge's wedding. Along the lines of working on her M.S. and/or M.R.S., Judy has a new son named Daniel William. Many long hours have been spent in the lab and in inoculating rabbits. It is but coincidental that both Marg and Judy gave their seminars on the same day; it would seem after three years that Dr. Wolfe and Dr. Stone could tell them apart.

New students and project assistants have arrived in the immunogenetics lab this fall: <u>Shirley Brody</u>, B.A. from University of Rochester, is working on her master's degree. <u>Nancy Couse</u>, B.S. from Cornell University, has begun the long climb toward a Ph.D. <u>Ronald Niece</u>, B.A. from Blackburn College (Illinois), has also begun his course work toward his M.S. <u>Joan Caulton</u>, a Chicago girl with B.A. from Gr_{in}nell College, Iowa, 1962, is a new project assistant in the blood lab this fall. <u>Susanne Neal</u>, another '62 graduate of Carleton College (Minn.), has arrived to take over Sharon Desborough's duties as project assistant to Dr. Irwin. Susanne's husband is a beginning medical student.

FUR ANIMAL LAB

Fur animal research, under the direction of Dr. Richard Shackelford, will now be a joint venture between the Departments of Genetics and Meats & Animal Science. Jan Rapacz, Ph.D. from the University of Krakow, has spent the past year in the Fur Lab with intensive studies on blood groups in mink, plus an additional two months studying techniques in the Serology Laboratory at the University of California, at Davis. <u>Charles Rust</u>, B.S. Wisconsin State College at Whitewater and M.S. University of Wisconsin, has doggedly plowed through the course work for his Ph.D. and passed his prelims earlier this fall.

MOLECULAR GENETICS

In April 1962, <u>Dr. Ernst Freese</u> and his associates left the University of Wisconsin to establish a laboratory in molecular biology at the National Institutes of Health in Bethesda, Maryland.

Dr. Masayasu Nomura, of the Institute for Protein Research, Osaka University, Osaka, Japan, will join our staff on May 1, 1963 to continue research along the lines of molecular biology and will teach a course in molecular genetics.

Dr. Millard Susman, Ph.D. from California Institute of Technology, has joined our staff as an Assistant Professor. He has just returned after a year's research at the Microbial Genetics Research Unit in London-- will teach the second semester course in Genetics of Microorganisms. His research activities will be centered around the effect of acridine dyes on development of bacterial phages.

Michael Piechowski, formerly with Dr. Freese, is continuing as a research assistant with Dr. Susman, working toward his Ph.D.

THE ANIMAL BREEDING GROUP

The past year has been very eventful for most of the members of the Animal Breeding Group. Four of us passed our "prelims", two were married, five new members joined the group and three left. We feel like members of Noah's Ark because of the diversity of species on which research is being conducted by the various members of the group. Dr. Alexandria Knothe returned to her post at the Agricultural College, Krakow, Poland after a 15-month visit. She completed a paper in collaboration with Dr. Chapman dealing with a performance index for sheep. Also, she managed a rather extensive tour of the U.S. and Europe before returning to her duties in Poland.

Lauren Christian, who is a swine man at heart, is spending his time analyzing the results of his twin beef cattle studies since he passed his prelims in June. In his spare time he judges county fairs and plays with his daughter, Chandra.

<u>M. P. Mi</u> also passed his prelims in June and is winding up his research on mating systems in dairy cattle. In addition to spending long hours sweating over a computor at "Ag Records", he managed a flying trip to Formosa this spring.

James Wheaton spent the fall semester with us, then took a position with the U.S.D.A., in Elizabethtown, Pennsylvania.

Rat husbandry occupies the time of four of the members of the group. <u>Gerald</u> <u>Havenstein</u> joined us in the fall of 1961 with his degree in Poultry Science from Kansas State. He is now studying the genetic effects of irradiation of the female rat. In his spare time he charms the young ladies.

Morgan Chiang, M.S. from McGill University, was here this year working on blood groups in rats as a joint venture between the Irradiation Project and the Blood Lab. Morgan has accepted an assistantship for next year in the Department of Soil and Crop Service of the A & M College of Texas.

Janet Coyle and Carl Hansen decided to pool their resources by getting married in June. They also passed their prelims in May. Janet is continuing her work investigating the genetic effect of radiation of the male rat. She divides her time between Numerical Analysis Laboratory, the rat lab, and cooking exotic dishes. Carl spends his time sampling these dishes and in studying the effects of selection in rats on different nutritional environments.

Overseeing this activity is <u>Dr</u>. <u>Chapman</u>, our advisor and mentor. We all appreciated the fall and spring outings he and Mrs. Chapman arranged for us. Dr. Chapman continues as editor of the <u>Journal of Animal Science</u>.

Mrs. Payton divides her time between the lab, supervising the record keeping for the rats and transporting them between the lab and hospital for radiation.

Mrs. Walters is in charge of keeping the swine and sheep records. In addition, she sees that we have coffee or tea and on occasion threatens to cut off our supply if too many dirty cups accumulate.

Three new arrivals add to the cosmopolitan complection of the group.

Brian P. Bradley, graduate of Queen's University, Belfast, Ireland, has just joined the group as a graduate student in animal breeding with an assistantship on the sheep breeding project. He spent last year at the Institute of Animal Genetics, Edinburgh. Trygve Gjedrem, graduate and member of the staff of the Institute of Animal Genetics and Breeding, Agricultural College of Norway, Vollebekk, is spending 1962-63 with us on a Kellogg Foundation Fellowship.

Dilip K. Biswas, graduate of Calcutta University and Bengal Veterinary College, Calcutta, India has just arrived to start his graduate work in animal breeding. He is an assistant on the swine breeding project. Last year he was an Instructor at the Bengal Veterinary College.

> * * * * * IN * MEMORIUM * * * * Dr. Gustav H. Rieman * * 1902-1961 * * * *

POTATO RESEARCH

As of this writing, the Inter-Regional Potato Introduction project group and the group working on the genetics and cytogenetics of the tuber bearing Solanus are being transferred administratively to the Department of Horticulture. July 1 also brought about our loss of the major part of <u>Professor Bob Hougas</u>' time, with his appointment as Assistant Director of the Agricultural Experiment Station in Ag Hall. He will continue as our valued advisor, however, until a successor is appointed. He spent the summer expanding the genetic studies of Solanum to exploit the implications of haploidy for breeding.

Dr. Peloquin is devoting his attention to numerous aspects of fertility in various haploid and hybrid materials. At the last Crop Science meetings, Stan presented a paper entitled "Hybrids between <u>Solanum tuberosum</u> haploids and diploid Solanum species."

August Gabert, having passed the language requirements, successfully tackled prelims on a wonderful day in May. He has some interesting data dealing with the inheritance of the effect of the pollinator on the frequency of haploids from 4X-2X matings. He presented a paper entitled "Haploid frequency in Solanum tuberosum following 4X-2X matings: superior 'pollinators' and superior seed parents" at the potato meetings in August.

Lorraine Mortenson has met the challenge of an abundance of course work and has also carried on some interesting studies on pollen germination. Lorraine received her M.S. this spring and worked in Sturgeon Bay this summer as a project assistant.

Dr. Birdie Yeh, who received her Ph.D. from L.S.U., has been with us since September 1961, except for a few months in Taiwan. She will be working with cytogenetic aspects of evolution in the tuber-bearing Solanums. It is a pleasure to report that Don Ugent has been awarded an NSF grant to study, in situ, the biosystematics of the Peruvian-Bolivian diploid species of Section Tuberarium, Series Tuberosa. Don left for South America this fall and will conduct an intensive study of the weedy and cultivated <u>Solanum</u> populations with ecological, geographic and genetic emphasis. (This could be the understatement of the year).

We're glad to welcome <u>Nelson</u> Estrada and his family back to Madison. Nelson is a Rockefeller Fellow from Colombia and obtained his M.S. here in 1958. He and his wife now have two children in the expected ratio. Nelson has been working on field resistance to <u>Phytophthora infestans</u> with considerable success, and he should be able to expand his many other interests during his stay here.

Roman Ross is back at S. Bay where his duties with the IR-l project do not allow many side trips to Madison. Romie has been concentrating on the colchicinedoubling of chromosome numbers of selected genotypes. In addition, he presented a paper at the potato meetings concerning the fertility of hybrids from diploid species x haploid matings.

Jones Smiley is continuing his studies on the mode of inheritance of several tuber characteristics. He has also expanded his interests to include study of the self-fertility which has appeared in certain hybrid combinations.

Mozart Liberal, another Rockefeller Fellow, joined the group last August and is now working on his M.S. He was accompanied to this country by his wife, also a student at U.W., and family. While in Brazil, Liberal concentrated chiefly on breeding for resistance to late blight. It should be noted that the name does not necessarily connote political inclination.

<u>Gelacio Perez</u>, also a Rockefeller Fellow, will be spending only one more summer with the group before returning to Mexico. Gelacio and his wife were blessed with a daughter last fall. While at Sturgeon Bay, he worked very hard in attempting to transfer the late blight immunity of <u>Solanum</u> <u>bulbocastanum</u> to various <u>tuberosum</u> haploids.

The studies on self-incompatibility among haploids of subsp. <u>andigena</u> carried on by <u>Martin Cipar</u> reached a definitive stage this summer. Additional studies involving colchicine-doubled stocks are in progress. Martin is planning to take prelims this fall.

Dr. Marie-Luise Baerecke, from Max Planck Institute for Plant Breeding, will spend the next year with us. She is particularly interested in leaf-roll resistance.

Welcome to Keith Roe, B.S. Iowa State 1962, who has just joined our group.

The Potato Improvement Project group suffered the loss of <u>Professor Gus Rieman</u> from a heart attack in October 1961. Dr. Hougas supervised the Rhinelander operations until this fall, when Assoc. Professor Stan Peloquin was appointed leader of the project.

<u>Professor D. C. Cooper's</u> current investigations center around polyploidization of cells maintained in tissue cultures of tobacco as a possible factor in their visual host relationships. Additional studies involve the nature of seed failure following reciprocal crosses of barley and rye.

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Pao Min Tseng has been vigorously pursuing her research on pollen subjected to x-irradiation. The cytological studies involve pollen from Solanum, Lilium and Peonia. The results are now being incorporated into her thesis. Last spring, Pao Min passed her prelim examination.

Pushpajit Ghosh took his M.S. in January 1962 and is now with the Indian Agricultural Research Institute in New Delhi.

The corn group has had two losses during the past year--Dr. Ken McWhirter, who is now home in Australia and working on genetical and breeding problems associated with tropical grasses (C.S.I.R.O. Laboratory, at Brisbane); and Jean Saunoris, who has returned to Canada.

Dr. Brink continues to 'spread the word,' and during the past year accepted invitations to discuss <u>Paramutation in Maize</u> at the National Poultry Roundtable in Chicago; the annual meeting of the North Central Corn Breeders Committee, Chicago; and the Biology Colloquium, Harvard University, Cambridge. We regret to have to add the news of Mrs. Brink's death on May 27, 1962, of cancer.

Jack Axtell, who so nobly and patiently assists with everyonelse's projects, also finds time to uncover some peculiarities of the R locus in his own project, and in so uncovering is revealing a true pandora's box of plant stripe types. Jack and his wife now have a son and heir, in addition to their daughter, Kathleen.

Robert Bray continues on his course with his mutation studies. He finds it useful to score his mutation rates according to whether they fall above or below par. Having passed both his languages during the first summer he was here, he has little to worry about in the future except his 'prelims'.

<u>Doug Brown</u> is expecting to finish his thesis and to get his Ph.D. soon. He will, however, be with us for at least another year as a Project Assistant. Doug took a holiday in Florida during the winter, and while he was there he took time out to pollinate our winter crop of corn at Homestead.

Jerry Kermicle finished his thesis for graduation and has left the lab, but only to migrate as far as Dr. Strong's lab in the Biochemistry building. Jerry has been awarded a grant which will enable him to do some much needed research on the biochemistry of corn anthocyanin pigments.

<u>G.K.R.</u> Sastry has added one more Master's degree to his credit (he now has three!), and one more project to his research. He has undertaken to start some studies on the R^{Ch} allele, an allele of the <u>R</u> locus conditioning cherry colored pericarp in addition to aleurone pigment.

Derek Styles has added a lot of corn to the storage bins, and signatures from the German and French Departments to his credit. His project is progressing and progressive, but hardly toward general clarification of his problem.

VISITORS

Dale E. Kester, Associate Professor of Pomology, University of California, Davis, is spending the first semester on sabbatical leave in the Departments of Genetics and Botany. He is interested in the significance of paramutation for certain problems in almond breeding. Professor Kester's Madison address is 109 Craig Avenue. Charles O. Gardner, Professor of Agronomy, University of Nebraska, is visiting our department this year, also on sabbatical leave. He will teach a second semester course entitled "Biometrical Genetics & Plant Breeding."

TECHNICAL ARTICLES 1961-62

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