



The University of Michigan Medical School
Department of Human Genetics
Newsletter 1999



Greetings from the Chair

I am pleased to send you this tenth annual Department of Human Genetics Newsletter, and I look forward to seeing many of you at the alumni gathering to be held on Friday evening, October 22, 1999, during the American Society of Human Genetics meetings in San Francisco.

The renovations are in full swing and, at times, the Department looks more like a construction site than a research facility. The sound of the jackhammer is heard throughout the land and large equipment rumbles outside our windows. Two significant floods in Medical Sciences II have not diminished our desire for new space. The Buhl Building stands gutted, but connected to Med Sci II, and we look forward to the completion of Phase I by next summer. The administrative offices, conference room, classroom, library, and dry labs for our quantitative geneticists, plus state-of-the-art animal facilities in the basement, will all occupy the new Buhl. Phase II will see renovation of new labs for Gelehrter, Glover, Meisler and Moran on the fourth level of Medical Sciences II, plus renovations on the third level.

Last June, George Brewer hosted a national meeting of the Wilson's Disease Association, which was highlighted by the announcement of a gift of over \$1 M to establish the Morton S. and Henrietta K. Sellner Professorship in Human Genetics. This gift recognizes George's pioneering efforts to develop a safe and effective therapy for Wilson's disease. Matched by \$750,000 from the Dean's Office, this gift establishes the first endowed chair in our Department. Jeff Chamberlain, whose work on gene therapy for Duchenne muscular dystrophy continues to move toward clinical trials, has been named the Interim Director of the Center for Gene Therapy at Michigan. David Burke and his colleagues in Engineering are, according to the Associated Press, "developing a device that is powerful enough to analyze DNA samples in minutes and small enough to fit in your pocket." Their paper in Science last fall, *An Integrated Nanoliter DNA Analysis Device*, reports exciting progress in this effort.

Jeff Chamberlain and Didi Robins were promoted to Professor of Human Genetics, and Tom Glover was promoted to Professor of Human Genetics, along with Professor of Pediatrics and Communicable Diseases.

Comings and Goings

As I write this, we look forward to the Tashian Fest on October 16, honoring Dick Tashian after 42 years on our faculty. I hope that many of you will be able to join us for this festive occasion and attend the excellent symposium. During the past year, George Brewer began a three-year phased furlough after 34 years on our faculty. I have just celebrated 25 years on the faculty at Michigan, almost half of them as chair of this Department. Chao-Zhong Song, Assistant Research Scientist, has taken a position at the University of Washington, Seattle.

Numerically Speaking

Our faculty numbered 27 in 1998-99, including eight professors (three joint), ten associate professors (five joint), four assistant professors (three joint), two primary research faculty, one lecturer and two clinical instructors. Four Emeritus faculty (two active) complement this group. Our eleven tenure track faculty with primary appointments in Human Genetics were awarded almost \$6 M in direct cost funding during this past year and have another \$10 M pending. All of our faculty are funded and support, on average, 50% of their salaries on external funds. The Department had 40 students during this past year, including four in the MSTP, eight in the Graduate Program in Genetic Counseling, and four masters students. Expenses for student tuition, stipends, and GradCare totaled over \$500,000. In addition to Human Genetics students, we have four CMB students, including one in the MSTP, and one Neuroscience student performing thesis research in Departmental laboratories.

Administration

The administrative staff was challenged this year with the implementation of M-Pathways (a new financial management system for the entire University), planning for Y2K, and the planning and implementation of lab renovations and moves into swing space. Linda Peasley and her staff have processed 27 grant applications this past year and continue to provide a superb service to a research-intensive department.

Awards and Honors

George Brewer was elected President of the International Society for Trace Element Research in Humans and received the Raulin Award, the highest honor given by this Society, for a lifetime of trace element research. He delivered the Raulin Address at the annual meeting of the Society in Lyons, France. In October, Wendy Uhlmann begins her tenure as the President of the National Society of Genetic Counselors. David Ginsburg received the 1999 Distinguished Faculty Lectureship Award from the University, and David Burke was selected for a Faculty Recognition Award. Liz Petty received a Gender Equity Award in Medical Student Teaching from the American Medical Women's Association. John Moran won the Postdoctoral Basic Science Research Award at last fall's American Society of Human Genetics Meetings. Margit Burmeister was awarded a Humboldt Fellowship for her sabbatical leave at the Max Planck Institute, Berlin. Francis Collins received the 1999 Arthur Flemming Award for Public Service.

Based on academic performance, Michael Glynn was the recipient of this year's James V. Neel Fellowship, and David Buchner, the Howard Cramer Family Fellowship.

Graduate Education

Miriam Meisler has completed 13 years as the Director of Graduate Studies for the Department, and George Brewer has completed 7 years as Director of Admissions. They will be replaced by the tandem of Didi Robins and David Burke, who will share these two duties. This fall, we welcome the first class admitted through the Program in Biomedical Sciences. The Human Genetics first semester core course, HG541, will be modified to serve as one of the core courses for the new PIBS Program, and Didi Robins was involved in the planning of a new course on gene expression for PIBS. Diane Baker guided the Genetic Counseling Program through the accreditation process, resulting in full accreditation for six years, the longest term granted by the American Board of Genetic Counseling. Along with colleagues Wendy Uhlmann and Jane Schuette, she wrote and edited a textbook, *A Guide to Genetic Counseling*, that was published this year by John Wiley. The book has become an instant success and will certainly be the preeminent text in this profession. Jeff Innis directed the Medical Genetics Residency Program through its first accreditation site visit, and I am confident that this Program will be duly recognized and certified.

Five of our students completed their doctoral training during this past year. Jason Moore (Sing lab, "Genetic Analyses of Dynamic Quantitative Traits") is

now an Assistant Professor at Vanderbilt University Medical School. George Pappas (Trent lab, "Genotypic and Phenotypic Analysis of Malignant Melanoma; Analysis of Gene Expression Patterns") is a postdoctoral fellow at the National Human Genome Research Institute. Laura Post (Innis lab, "The Phenotypic and Molecular Consequences of a *Hoxa13* Mutation in Hypodactyly Mice") is a postdoctoral fellow at Vanderbilt University. Frank Probst (Camper lab, "Identification and Characterization of Myo15, A New Deafness Gene") has returned to UM Medical School to complete the final two years of medical training as an MSTP student. Tony Yang (Ginsburg lab, "Cellular Origins and Function of Murine Coagulation Factor V") has also returned to UM Medical School to finish his final two years of medical school.

Four genetic counseling students graduated in December. Trudy Cavanagh has joined the Prenatal Diagnostic Program at Mercy Hospital in Chicago. Amy Parsons is a member of the Reproductive Genetics Program at Kaiser, San Diego, CA. Kara Helin is managing two positions with the Eastern Virginia Medical School and the Tidewater Perinatal Center in Norfolk, VA. Shannon Wiltse has been employed locally at St. Joseph's Mercy Hospital to start-up their new Prenatal Diagnostic Program.

In addition, we had 28 undergraduates rotate through primary faculty labs and 25 postdoctoral fellows in Departmental laboratories during this past year.

In Closing...

These are exciting times at the University of Michigan. Under the leadership of President Lee Bollinger, the University has begun a Life Sciences Initiative, committing \$200 M to construction of new buildings for research and education and the recruitment of 40 new faculty. The creation of the "Institute for the Study of Biological Complexity and Human Values" offers exciting opportunities for developments in the study of complex genetics. The Biostatistics Center, headed by Mike Boehnke in the School of Public Health, and the new Bioinformatics Program, headed by Michael Savageau, Chair of the Department of Microbiology and Immunology, offer further opportunities for collaborative development in this area. Finally, we are fortunate that the University of Michigan Health Center, unlike many academic health centers around the country, is financially sound and successful, and, under the leadership of Executive Vice President, Gil Omenn, and Dean Allen Lichter, has committed to using these resources to further develop academic programs. As the Medical School celebrates its sesquicentennial, the School is poised for exciting times

to come in the new millennium. Human Genetics will certainly play an important role in these developments.

We appreciate your continued support, both financial for the Neel and Cramer Endowments, and your help in directing students to our programs. I am pleased to share this year's news of the Department with you and I hope to see many of you at the American Society of Human Genetics Meetings in San Francisco.

With best regards,

Sincerely,



Thomas D. Gelehrter, M.D.
Professor and Chair

Faculty Activities

Diane Baker was an invited speaker at the Region IV National Society of Genetic Counselors Meeting, and serves as a member of the Education Planning Committee of the University of Michigan Health Center's Strategic Planning Process.

George Brewer was appointed to the National Research Council's Committee to review the EPA's maximum contaminant level goal for copper in drinking water. He is the Associate Editor of the *American Journal of Hematology*, and serves on the Editorial Boards of *Progress in Clinical and Biological Research*, *The Journal of Trace Elements in Experimental Medicine*, and *Biochemical Genetics*.

David Burke was an invited speaker and a session Chair at the National Institute on Aging Workshop on Genetic Epidemiology of Aging. He continues to serve on the Genome Research Review Committee of the National Human Genome Research Institute, and on the Editorial Board of *Genome Research*.

Margit Burmeister serves on the Editorial Board of *Mammalian Genome*. She was the chair of the Mouse Chromosome 10 Committee and has become a permanent member of the Communications Disorders Review Committee of the National Institute on Deafness and Communication Disorders.

Sally Camper is a member of the NIH Mammalian Genetics Study Section, and serves on the Editorial Boards of *Molecular Endocrinology*, *Mammalian Genome*, and *Genomics*. She is the Associate Director of the Program in Biomedical Sciences (PIBS) and directs the Transgenic Animal Core Facility, which has now provided almost 3,000 founder animals for 75 investigators from 20 U of M departments and 13 outside institutions.

Jeffrey Chamberlain was an invited speaker at the International Union of Biochemistry and Molecular Biology Conference on the Biochemistry of Health and Disease in Jerusalem, at the French Muscular Dystrophy meeting in Paris, and at the annual meeting of the American Society of Biochemistry and Molecular Biology. Jeff serves on the Editorial Boards of *Gene Therapy*, *Genome Research*, *Human Molecular Genetics*, *Neuromuscular Disorders*, *Journal of Gene Medicine*, *Molecular Therapy* and *Genetic Medicine*. He is a member of the Cell Development and Function 5 Study Section, and is also on the Scientific Advisory Committee of the Muscular Dystrophy Association and the Board of Directors of the American Society for Gene Therapy.

Eric Fearon presented invited lectures in Tokyo and at the Dana Farber Cancer Institute, Boston. Eric is a member of the Board of Scientific Advisors of the National Cancer Institute, and on the Scientific Advisory Committee of the Damon Runyon Walter Winchell Cancer Research Fund. He is also Associate Editor of the *Journal of Clinical Investigation*, *Cancer Research*, and *Clinical Cancer Research*.

Philip Gage was elected to the Advisory Committee on Primary Research Appointments, Promotions, and Titles.

Thomas Gelehrter presented invited lectures in Brussels and Leuven, Belgium, and at the Institut Pasteur, Paris. He is a member of the Editorial Board of the *Journal of Biological Chemistry*, a member of the Council of the International Society of Fibrinolysis and Proteolysis, and of the Social, Ethical, and Legal Issues Committee of the American College of Medical Genetics.

David Ginsburg was an invited lecturer at the Nordic Symposium on Willebrand Disease in Åland, in Hamamatsu, Japan, and in Amsterdam. He is Deputy Editor of the *Journal of Clinical Investigation*, as well as a member of the Editorial Boards of the *American Journal of Medicine*, *Thrombosis and Haemostasis*, *Proceedings of the Association of American Physicians*, and *Biology of Blood and Marrow Transplantation*. He is a member of the Board of Scientific Counselors of the National Human Genome Research Institute, and is a member of the Advisory Committee for the Life Sciences Initiative.

Thomas Glaser was an invited speaker at Harvard Medical School, and at a European Union meeting in Vilnius, Lithuania.

Thomas Glover was an invited speaker at the 1998 ASHG Meeting and at the Mayo Foundation. He is a member of the Research Advisory Board of the March of Dimes Birth Defects Foundation, is an Associate Editor of the *American Journal of Human Genetics*, and serves on the Editorial Board of the *American Journal of Medical Genetics*.

Jerome Gorski was an invited lecturer on the Molecular and Developmental Genetics of Aarskog Syndrome at a 70th Birthday Symposium honoring Dr. Dagfin Aarskog in Bergen, Norway. He is an Associate Editor of *Genetics in Medicine* and a member of the Michigan State Department of Public Health Genetics Advisory Committee.

Jeffrey Innis presented Pediatrics/Human Genetics Grand Rounds at UCLA, and was an invited speaker at the Association for Molecular Pathology meeting. Jeff is also a Consulting Editor of *Pediatric Research*.

Kotoku Kurachi presented invited seminars in Toulouse, France, and at several universities in Japan. He has completed a term on the Biochemistry Study Section and is a member of the Editorial Boards of *Bioscience*, *Biotechnology and Biochemistry* and *Gene Therapy/Molecular Biology*. Ko is also on the external Advisory Board for Kyushu University in Japan.

Myron Levine is a member of the selection committee for the Wallenberg Lectureship, and is the Departmental representative on the Sesquicentennial Planning Committee.

Miriam Meisler presented invited lectures in London and Harwell, UK. She continues as President of the International Mammalian Genome Society and as a member of the External Advisory Committee of the Mammalian Genome Database at the Jackson Laboratory, and has been appointed to the Advisory Council of the National Institute on Deafness and Communication Disorders. She is an Associate Editor of *Genomics* and on the Editorial Board of *Mammalian Genome*.

John Moran has been an invited speaker at NIH, at Warwick, United Kingdom, and in Brisbane, Australia.

Gil Omenn, Executive Vice President for Medical Affairs, was the keynoter for the Conference on HealthCare 2004 on "Genetic Medicine and its Ramifications for Future Health Care." He was elected to the Executive Committee of Funding First, the Lasker Trust supported organization seeking to sustain an increased funding path for NIH, and appointed to the AAAS Committee on Court Appointed Scientific Experts. He hosted the 1999 Institute of Medicine Regional Meeting. He is deeply involved in the University's Life Sciences Initiative and the Michigan Life Sciences Research Corridor.

Elizabeth Petty presented an invited seminar at Queen's University, Belfast, Northern Ireland, and was a keynote speaker at the Michigan American Civil Liberties Union Annual Meeting. She has completed a two-year term on the State of Michigan Governor's Commission on Genetic Privacy and Progress.

Diane Robins was an invited speaker at Rockefeller University and at the University of Illinois. Didi is a member of the Council for Extramural Grants of the American Cancer Society and is a Review Panel member for the US Army's Medical Research on Breast, Ovarian and Prostate Cancer. She also serves on the Editorial Boards of *The Journal of Biological Chemistry*, *Steroids*, and *Genetica*. Didi was recently elected to the Advisory Committee on Appointments, Promotions, and Titles.

Jane Schuette is a member of the Genetic Advisory Committee for the state of Michigan.

Charles Sing was an invited speaker at the University of South Carolina and at the National Public Health Institute in Helsinki, Finland. He serves on the Editorial Boards of the

Journal of Molecular Medicine, and the *American Journal of Medical Genetics*. He is a member of the committee on Genomics and Multifactorial Disease at the Center for Bioethics, Clinical Research Institutes of Montreal.

Anand Swaroop was an invited speaker at the International Symposium on Retinal Degeneration in the Black Forest, Germany. He is a member of the Editorial Review Board of *Molecular Vision* and a member of the Genetics Committee, The Foundation Fighting Blindness.

Wendy Uhlmann presented an invited seminar at the Karamanos Cancer Institute at Wayne State University, and is on the Advisory Committee for the University of Minnesota Center for Bioethics.

*University of Michigan
Department of Human Genetics
Alumni Gathering
at the
American Society of Human Genetics
Vista Room
Argent Hotel
San Francisco, California*

*Friday, October 22, 1999
9:00 PM - 11:00 PM*