

Jeffrey Sean Huo

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EDUCATION

- American School in Japan High School**, Chofu-shi, Tokyo, Japan. *Valedictorian*. (Sept. 1991 - June 1994)
- Northwestern University**, Evanston, IL (Sept. 1994 - June 1997)
 B.S. (*Magna cum Laude*), Biomedical Engineering. Departmental Undergraduate Honors Program.
 Honors Program in Medical Education (HPME): 7-yr. BS/MD program.
 Honors Thesis: *Inhibitory Interneuron Control Over the Spread of Excitation in CA3*.
 Thesis Advisor: David Mogul, Ph.D.
- University of Michigan Medical School**, Ann Arbor, MI (Aug. 1997 – May 2007)
 M.D. (*with Distinction in Research; with Distinction in Service*) May 2007
 Ph.D., Cellular and Molecular Biology. Defended Oct. 2005
 Thesis Title: *Computational and Functional Analysis of Growth Hormone Regulated Genes*.
 Thesis Committee: Jessica Schwartz, Ph.D. (Chair), Christin Carter-Su, Ph.D., Ronald J. Koenig, M.D., Ph.D., Kotoku Kurachi, Ph.D., Ormond A. MacDougald, Ph.D., David J. States, M.D., Ph.D.
- Medical Scientist Training Program (MSTP) (Aug. 2001 – May 2007)
- Washington University in St. Louis Med. Sch. / St. Louis Children's Hospital**, MO (June 2007 – present)
 House Officer, Department of Pediatrics
- Johns Hopkins University / National Cancer Institute, National Institutes of Health** (beginning July 2010)
 Fellow, Pediatric Hematology / Oncology

AWARDS AND HONORS

NATIONAL SCHOLARSHIPS

- Howard Hughes Medical Institute Medical Student Research Training Fellowship 1999 – 2000
 National Defense Science and Engineering Graduate (NDSEG) Fellowship 2001 – 2003
 Howard Hughes Medical Institute Predoctoral Fellowships in the Biological Sciences 2001, Alternate
 National Science Foundation (NSF) Graduate Fellowship (awarded 2001) 2003 – 2005

AWARDS AND HONORS (At the University of Michigan: 1997 – 2007)

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| University of Michigan Merit Scholarship (4 yr.) | 1997 | U. Michigan Cellular & Molecular Biology (CMB) Training Grant | 2000 |
| Michigan Summer Biomedical Research Program (SBRP) Grant | 1998 | Delta Epsilon Iota National Honor Society | 2003 |
| American Heart Association Research Grant (#08SF978, approved but not funded) | 1998 | CMB Program Symposium Poster Award (2 nd Place) | 2004 |
| Alpha Omega Alpha Summer Research Fellowship | 1998 | Endocrine Society Travel Grant Award | 2004 |
| U. Michigan Cardiovascular Research Symposium Poster Award | 2000 | NIH NICHD Meeting of Fellows MSTP Travel Grant Award | 2005 |
| Medical Center Alumni Society (MCAS) M3 Student Service Scholarship Award (1 / class) | | | 2006 |

AWARDS AND HONORS (At Northwestern University: 1994 – 1997)

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| Tau Beta Pi Engineering National Honor Society | 1997 | Golden Key National Honor Society | 1997 |
| Mortar Board National Honor Society | 1997 | Dean's List (6/9 quarters, one High Honors) | |
| National Merit Scholarship Program Scholarship AP Scholar with Distinction | 1994 | Harvard Model United Nations Delegate Award (4/~90 delegates) | 1995 |
| Delta Tau Delta Freshman Scholarship Winner | 1995 | Alpha Lambda Delta Freshman National Honor Society | 1995 |
| Sigma Phi Epsilon "Balanced Man" Freshman Scholarship Finalist | 1995 | First Prize, Northwestern University Writing Program Essay Competition | 1997 |

PUBLICATIONS

- Kurachi, S. Deyashiki, Y. Takeshita, J. Kurachi, K. Genetic Mechanisms of Age Regulation of Human Blood Coagulation Factor IX. *Acknowledgement in Science* 285(5428): 739-743. 1999.
- Kurachi, K. Zhang, K. Ameri, A. Huo, J. Atoda, H. Kurachi, S. Genetic and Molecular Mechanisms of Age Regulation (Homeostasis) of Blood Coagulation. *IUBMB Life* 49:1-8. 2000.
- Piwien-Pilipuk, G. Huo, JS. Schwartz, J. Growth Hormone Signal Transduction. *J. Pediatric Endocrinology Metabolism* 15:771-86. 2002.
- Kurachi, K. Zhang, K. Huo, J. Ameri, A. Kuwahara, M. Fontaine, JM. Yamamoto, K. Kurachi, S. Age-related Regulation of Genes: Slow Homeostatic Changes and Age-Dimension Technology. *Physica A.* 315:1-5-113. 2002.
- Schwartz, J. Huo, JS. Piwien-Pilipuk, G. Growth Hormone Regulated Gene Expression. *Minerva Endocrinol.* 4:231-41. 2002.
- Cui, TX. Piwien-Pilipuk, G. Huo, JS. Kaplani, JI. Kwok R. Schwartz, J. Endogenous C/EBP β and p300 are Dynamically Regulated by Growth Hormone. *Mol. Endocrinol.* 19:2175-86. 2005.
- Huo, JS. McEachin, RC. Duggal, NK. Hai, T. States, DJ. Schwartz, J. Profiles of Growth Hormone-Regulated Genes Identify a Role for C/EBP β in Expression of ATF3. *J. Biological Chemistry* 281: 4132-4141, 2006.
- Cesena, TI. Cui, TX. Piwien-Pilipuk, G. Kaplani, J. Calinescu, AA. Huo, JS. Iniguez-Lluhi, JA. Kwok, R. Schwartz, J. Multiple mechanisms of growth hormone-regulated gene transcription. *Mol Genet Metab.* 90(2):126-33. 2006.
- Chen, L. Maures, TJ. Jin, H. Huo, JS. Rabbani, SA. Schwartz, J. Carter-Su, C. SH2B1beta (SH2-Bbeta) enhances expression of a subset of nerve growth factor-regulated genes important for neuronal differentiation including genes encoding urokinase plasminogen activator receptor and matrix metalloproteinase 3/10. *Mol Endocrinol.* 22(2): 454-76. 2008.
- Watkins, MG. Dejkhamron, P. Huo, J. Vazquez, DM. Menon, RK. Persistent neonatal thyrotoxicosis in a neonate secondary to a rare thyroid-stimulating hormone receptor activating mutation: case report and literature review. *Endocr Pract.* 14(4): 479-83. 2008.
- Kurachi, S. Huo, J. Ameri, A. Zhang, K. Yoshizawa, A. Kurachi, K. An age-related homeostasis mechanism is essential for spontaneous amelioration of hemophilia B Leyden. *Proceedings of the National Academy of Sciences.* In press.

PRESENTATIONS AT NATIONAL MEETINGS

- Huo, JS. McEachin, RC. States, DJ. Schwartz, J. Analysis of Growth Hormone-Regulated Genes Using Bioinformatics Strategies. Abstract selected for oral presentation, Endocrine Society Annual Meeting, 2004.

ABSTRACTS

- Kurachi, S. Ameri, A. Huo, J. Pantazatos, D. Hoff, J. Kurachi, K. Genetic and molecular mechanisms for puberty-onset amelioration of hemophilia B Leyden: Role of growth hormone. *Blood* 94: (10) 2024 , Part 1, Suppl. 1. American Society for Hematology, 1999.
- Kurachi, S. Ameri, A. Huo, J. Hoff, J. Atoda, H. Kurachi, K. Specific gene expression switches are responsible for puberty-onset amelioration of transgenic mouse Leyden: construction of transgenic mouse models and role of growth hormone. *Blood* 96: (11) 2107, Part 1. American Society for Hematology, 2000.
- Cui, TX. Huo, JS. Duggal, NK. Kwok, R. Schwartz, J. CRE and C/EBP sites coordinately mediate GH-stimulated gene expression. Endocrine Society Annual Meeting, 2005.
- Lin, G. Chen, Y. Huo, JS. Barney, D. Livshiz, T. States, DJ. Qin, Z. Schwartz, J. The Transcriptional Repressor Bcl6 is Inhibited by Growth Hormone and Occupies the SOCS2 Promoter Reciprocally with Stat5. Endocrine Society Annual Meeting, 2008 (also selected for oral presentation).

RESEARCH EXPERIENCE

- Undergraduate Student, Mentor: David Mogul, Ph.D. (Winter 1995 – Summer 1997)
Asst. Professor, Biomedical Engineering Department, Northwestern University.
 Helping develop an object-oriented computer model of pyramidal neurons in the human hippocampus.
- Medical Student / Graduate Student, Mentor: Kotoku Kurachi, Ph.D. (Dec. 1997 – Feb. 2001)
Professor, Department of Human Genetics, University of Michigan.
 Helping study the molecular genetics of human blood coagulation factor IX and explore novel forms of gene therapy.
 Work in part funded by a HHMI Medical Student Research Training Fellowship (1999 – 2000)
- Graduate Student, Mentor: Jessica Schwartz, Ph.D. (Feb. 2001 – Oct. 2005)
Professor, Department of Physiology, University of Michigan.
 Studying the molecular mechanisms of the diabetogenic effects of chronic growth hormone treatment.
 Also responsible for hiring, training, and supervision of seven undergraduate research students, 2003 – 2005.

TEACHING EXPERIENCE

- Senior Counselor, American School in Japan Summer Day Camp (July – Aug., 1995, 96)
Teaching Staff, American School in Japan Summer School (June – July 1994, 95, 96)
 Developed curriculum for and taught Internet ('94), Pre-Algebra ('96), Geometry ('94, '95) and Algebra II-Trig ('96) courses for 6 – 10 middle and elementary school students.
- Volunteer MCAT Instructor, Kaplan Educational Center, Ltd., Ann Arbor, MI (Summer 1998)
Teaching Assistant, Molecular and Cellular Biology 500/501, U. Michigan Medical School (Fall 2001)
Mentor, undergraduate Biology Program Honors Thesis, Nisha Duggal (2003 – 2005)

ACADEMIC SERVICE**At Washington University in St. Louis Medical School / St. Louis Children's Hospital**

- Medical Ethics Subcommittee, St. Louis Children's Hospital (July 2007 – present)
 Responsible for ethical review of hospital policy and consultation on referred cases. Resident member.
- Residency Curriculum Council, St. Louis Children's Hospital. Elected by fellow House Officers. (July 2007 – present)

At University of Michigan Health System

- Member, Executive Steering Committee, Children's and Women's Replacement Hospital Project (Dec. 2004 – 2005)
 Responsible for coordinating the planning and design of the new 240+ bed U. Michigan Children's and Women's Hospital (opening 2011).

At University of Michigan Medical School

- Reviewer, Grant Review Committee, UMMS Office of Student Biomedical Research Programs (1999)
Tour guide / Host / Recruiter, Medical School Admissions Department (1997 – 2007)
 Organized and went on recruiting trips to Chicago area universities for UM MD and Ph.D. programs.
- Member, Medical Student Council. Elected as an M2 representative by the Class of 2001. (May 1998 – June 1999)
Coordinator, MCAS Career Seminar Series (Fall 1998 – Spring 1999)
 Worked with MCAS and clinical department chairmen to organize weekly noon presentations introducing medical students to each clinical department.
- Member, Medical Student Council. Appointed as representative of the MSTP research fellows. (Aug. 2003 – 2005)

At University of Michigan Rackham Graduate School

- Member, Biomedical Graduate Student Council. Elected by the students of the CMB Program. (Sept. 2000 – 2002)
Student Co-Coordinator, Cellular & Molecular Biology Program Symposium. (Fall 2001)
Member, Program Committee, Cellular & Molecular Biology Program, U. Michigan (Sept 2002 – 2004)
 Student member of joint faculty/student committee responsible for governance of the Cellular & Molecular Biology Ph.D. Program
- Student Member, Admissions Committee, Program in Biomedical Sciences (PIBS). (Jan. 2003 – 2004)
Student Member, Civil Liberties Board, Senate Advisory Committee on University Affairs (Sept. 2004 – 2005)
 (SACUA), University Senate, U. Michigan
 Appointed by Michigan Student Assembly as student member of board advising the University Administration on policy regarding issues of privacy and academic freedom.
- Member, Search Committee, for Dean of Students, U. Michigan (Appointed Oct. 2004)
 (Appointed as member of search committee which ultimately was never convened)

At Northwestern University

Vice President, Lindgren Residential College, for faculty affairs; Executive Board, Northwestern University Model UN; Freshman Peer Advisor, McCormick School of Engineering; In-dorm Student Health Aide, Northwestern University Health Service; Senator, Associated Student Government.

SERVICE TO NATIONAL ORGANIZATIONS

AMERICAN ACADEMY OF PEDIATRICS

Program Delegate, AAP Residents Section (July 2008 – present)

AMERICAN ASSOCIATION OF MEDICAL COLLEGES

Student Member, Liaison Committee, National Board of Medical Examiners (April 2002 – 2003)
Appointed by the AAMC as medical student member of advisory panel reviewing NBME administration of the United States Medical Licensure Examinations.

NATIONAL RESIDENT MATCHING PROGRAM

Student Member, Board of Directors (July 1999 – June 2004)
Student Member, Executive Committee of the Board of Directors (May 2000 – 2001)
Medical student member of Board of Directors responsible for governing all aspects of the NRMP.

FORD FOUNDATION / PARTNERSHIP FOR TRUST IN GOVERNMENT

Partnership Youth Council (Jan. 2001 – June 2002)
Member of 16-member panel of nationally-appointed youth (ages 16 – 24) leaders appointed to advise the Partnership on means of engaging young people in participation in government.

AMERICAN MEDICAL ASSOCIATION (AMA) / MICHIGAN STATE MEDICAL SOCIETY (MSMS)

Alternate Delegate, Michigan Delegation to the AMA House of Delegates (May 1999 - 2000, June 2001, June 2002 – 2003)
Representative of the medical students of the state of Michigan to the national assembly of representatives responsible for setting the policy of the AMA.

Chair, House Coordination Committee Dec. 2001
Responsible for coordinating medical student resolutions and testimony across nine reference committees of the Dec. 2001 AMA House of Delegates.

Delegate (Alt. Delegate), MSMS House of Delegates (2001, 2002 (1998, 1999, 2003))
Representative of U. Michigan Medical School to the assembly of representatives governing the Michigan State Medical Society.

- *Co-author, MSMS Resolutions (selected)*, MSMS Resolution 82-00A (Equal Representation in the AMA House of Delegates, passed 5/00).

Co-Author, AMA Resolutions and Policies (selected)

- H-295.899 (*Availability of Test Facilities for the 1999 Computerized USMLE Step 1, Resolution 324, June '98*)
- H-530.953 (*AMA Website and Online Activities, Resolution 604, June '98*)
- H-145.979 (*Prevention of Unintentional Shooting Deaths Among Children, Resolution 204, Dec. '98*)
- Bylaws 2.16 (*Medical Student Representation in the AMA House of Delegates, Resolution 10, June '99*)
- H-460.971 (*Health Services Research MD/Ph.D. Training in Medical School, Resolution 302, Dec '99*)
- AMA-HOD Resolution 323 (*National Clinical Skills Assessment Examination, June '99*).
- AMA-MSS Resolution Late 1 (*Replacement of the "Scramble" with a Two-Phase Match, Dec '99*)
- AMA-MSS Resolution Late 1 (*US Medical Student Match Fees, Dec. '01*)
- AMA-HOD Resolution 303 (*Developing Rational Role for USMLE Step Exams, June '03*)
- AMA-HOD Resolution 323 (*Opposing the Restructuring of the LCME, June '03*)

AMA-Medical Student Section Assembly Convention Committees:

Reference Committee Testimony Coordinator, June '98 (Ref. Com. F) and June '99 (Ref. Com. C).
Member, Reference Committee C (Legislation / Public Health), Dec. 1998.
Chair, Reference Committee B (Medical Education / Science), Dec. 1999.
House Coordination Committee, June 2001.

Executive Committee and Webmaster, 1998 AMA-MSS Section V Sectional Meeting.

Helped organize regional meeting for over 60 medical students from 14 medical schools in five states.

COMMUNITY SERVICE

Co-coordinator for Medical Center, Webperson, and founding member

(Oct. 1997 - Jan. 1999)

Minority Marrow Donor Coalition

Helped found and organize a grass-roots student coalition of 20+ campus organizations to educate and add people to the national marrow donor database; helped organize 5 registration drives and register 600+ people. In charge of all advertising and volunteer recruitment at the medical center.

Volunteer, Marshall H. Becker Memorial Pediatrics Clinic

Semi-monthly, Dec. 1997 – 1999

Alto / Tenor, *Voices of Healing* Medical Student Choir

Fall 1998 – Spring 1999

Essay Competition Judge, Michigan Society for Medical Research

(2003, 2004)

Tag Days Volunteer and Member, Galens Medical Society

Dec. 2004 – 2007

Citizenship: US Citizen