

CURRICULUM VITAE

(updated February 2007)

I. PERSONAL DATA

Name: H. Joseph Yost, Ph.D.
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Lab Website: www.hci.utah.edu/yost
CfC Website: www.huntsmancancer.org/group/children/centerForChildren.jsp
Citizenship: U. S. A.

II. EDUCATION

12/80 B.S. *cum laude*, Honors Program and Biology, Creighton University, Omaha, NE
8/87 Ph.D., Committee on Genetics, The University of Chicago, Chicago, IL
Thesis Advisor: Susan L. Lindquist Thesis title: The effects of heat shock and heat shock proteins on RNA processing (in *D. melanogaster* and *S. cerevisiae*)
8/87 - 3/88 Postdoctoral Research Associate, Dept. of Molecular Genetics and Cell Biology
The University of Chicago, Chicago, IL
Postdoctoral Advisor: Susan L. Lindquist
4/88 - 3/91 National Institutes of Health Postdoctoral Research Fellow
Dept. of Molecular and Cell Biology, University of California, Berkeley, CA
Postdoctoral Advisor: John C. Gerhart
4/91 - 6/91 American Cancer Society Senior Postdoctoral Fellow
Dept. of Molecular and Cell Biology, University of California, Berkeley, CA
Postdoctoral Advisor: John C. Gerhart
2002 Administration for Physician Executives Certificate, U. Utah School of Business

III. PROFESSIONAL EXPERIENCE

A. FULL-TIME ACADEMIC POSITIONS

7/91 - 6/97 Assistant Professor, Cell Biology and Neuroanatomy, U. Minnesota, Minneapolis,
1/94 - 7/97 Member, Institute of Human Genetics, University of Minnesota
7/94 - 6/96 McKnight Land Grant Professor, University of Minnesota
7/97 - 8/97 Associate Professor (tenured), Cell Biology and Neuroanatomy, University of
Minnesota, Minneapolis, MN
7/96 - 6/01 American Heart Association Established Investigator
8/97 - 6/01 Associate Professor (tenured), Oncological Sciences, University of Utah
8/97 - 7/02 Adjunct Associate Professor, Pediatrics, University of Utah
7/01 - 6/05 Program Leader, Pediatric Cancers Program, Cancer Center Support Grant
7/05 - 11/06 Program Co-Leader, Cell Response Program, Cancer Center Support Grant
8/97 - current **Investigator, Huntsman Cancer Institute, University of Utah**
7/01 - current **Professor, Oncological Sciences, University of Utah**
7/02 - current **Adjunct Professor, Pediatrics, University of Utah**

7/01 - current **Director, Center for Children, Huntsman Cancer Institute**

My goals during this period are to build bridges with the Department of Pediatrics and other SOM departments that have interests in children's cancers, to invigorate research programs in the predominant cancers that effect children (leukemia, sarcoma and neuroblastoma), to increase public outreach and raise awareness and funds for children's cancer research and treatment. Our greatest successes have been in the recruitment of pediatric physician-scientists to the HCI Center for Children, with interests in sarcoma research, T-cell development and leukemia. Since I assumed the Director position, our fund-raising efforts have generated approximately \$4 MM for children's cancer research.

B. PART-TIME ACADEMIC POSITIONS

- 1997 External Examiner, Ph.D. Dissertation Committee, Department of Cell Biology,
Harvard Medical School
- 1998 External Examiner, Ph.D. Dissertation Committee, Department of Genetics,
Harvard Medical School
- 1999 Visiting Lecturer, Department of Cell Biology and Anatomy
University of North Carolina at Chapel Hill, NC

C. EDITORIAL EXPERIENCE

- 2006-2007 *Seminars in Cell and Developmental Biology*, Guest Editor
- 2002 - current *Developmental Dynamics*, Editor
- 1997 - current *Developmental Biology*, Editorial Board member
- 1998 *Developmental Genetics*, Guest Editor

D. JOURNAL REFEREE

<i>Anatomical Record</i>	<i>Journal of Experimental Zoology</i>
<i>American Journal of Human Genetics</i>	<i>Mechanisms of Development</i>
<i>American Journal of Medical Genetics</i>	<i>Molecular Biology of the Cell</i>
<i>American Journal of Physiology (Heart and Circulatory Physiology)</i>	<i>Molecular Cell</i>
<i>Cell</i>	<i>Molecular Medicine Today</i>
<i>Current Biology</i>	<i>Proceedings of the National Academy of Sciences</i>
<i>Circulation</i>	<i>Roux's Archives of Developmental Biology</i>
<i>Circulation Research</i>	<i>Science</i>
<i>Development</i>	<i>Teratology</i>
<i>Development, Genes and Evolution</i>	<i>Trends in Cell Biology</i>
<i>Developmental Biology</i>	<i>Trends in Genetics</i>
<i>Developmental Cell</i>	<i>Trends in Microbiology</i>
<i>Developmental Dynamics</i>	<i>Nature</i>
<i>Developmental Genetics</i>	<i>Nature Cell Biology</i>
<i>Genes and Development</i>	<i>Nature Genetics</i>
<i>Human Genetics</i>	<i>Nature Reviews</i>

E1. CURRENT RESEARCH AWARDS AND GRANTS

“Program Project Grant: Positional Identity in the Zebrafish Embryo”

National Institute of Health, 1 P01 HD048886-01
Period: 03/15/07 – 03/14/13, Direct Costs for Project II, Yost PI: \$791,343
Period: 03/15/07 – 03/14/13, Direct Costs for Core, Bisgrove PI: \$514,388
Project II: “Patterning and Morphogenesis of Kupffer’s Vesicle by Transcriptional Networks” Project II Director: H. Joseph Yost (20% effort)
Principle Investigator: David Grunwald

“APC and Retinoids in Zebrafish Enterocyte Development”

National Institute of Health/National Cancer Institute 1 R01 CA116468
Period: 07/01/05 – 6/30/10, Direct Costs: \$225,000
Principle Investigator: David Jones
Collaborating Co-Investigator: H. Joseph Yost (7% effort)

“Gene Targeting in Zebrafish”

National Institute of Health, R21 HD052078
Period: 04/01/06 - 3/31/08, Direct Costs \$275,000
Principle Investigator: H. Joseph Yost (10% effort)
Collaborating Co-Investigator: Dana Carroll (10% effort)

“Genetic Regulation of Left-Right Organ Asymmetry” (Zebrafish)

National Institutes of Health, R01 HL66292-05
Period: 07/01/01 – 06/30/05, Direct Costs: \$800,000
Renewal: 07/01/05-06/30/10, Direct Costs: \$1,000,000 (score 0.2%)
Principal Investigator: H. Joseph Yost (20% effort)

“Molecular Roles of Syndecans in Development”

National Institute of Health, R01 HL075472-02
Period: 01/01/04 – 12/31/08, Direct Costs: \$1,250,000 (score 0.2%)
Principal Investigator: H. Joseph Yost (20% effort)

“Molecular Pathway of Cardiac Left-Right Development” (Xenopus)

National Institute of Health, R02 HL 57840-08
Period: 04/01/97 – 03/31/01, Direct Costs: \$569,137
Renewed: 07/01/01 – 06/31/07, Direct Costs: \$1,000,000 (score 0.6%)
Principal Investigator: H. Joseph Yost (20% effort)

E2. RESEARCH AWARDS AND GRANTS (COMPLETED)

“Zebrafish Research Core Facility”

National Institutes of Health, G20 RR14285-01
Period: 05/15/01 – 05/14/06, Direct Costs: \$547,196 (no indirects)
Co-Directors: David J. Grunwald and H. Joseph Yost

“Zebrafish Mutation Screen Facility”

University of Utah Incentive Seed Grant

Period: 7/01/03-6/30/05, Direct Costs: \$51,240
Principal Investigator: H. Joseph Yost

“Cancer Center Support Grant”

National Institute of Health/National Cancer Institute P30 CA42014
7/01/01- 6/30/05 Program Leader: Pediatric Cancers Program (10% effort)
7/01/05-11/03/06 Program Co-Leader: Cell Response Program (5% effort *pro-bono*)
Principal Investigator: consecutively Steve Prescott, Randy Burt, Mary Beckerle

“Molecular Determinants of Pediatric Heart Disease” (SCOR)

National Institutes of Health, P01 HL61006-02
Period: 01/01/99 – 12/31/03, Direct Costs (for Yost project): \$750,000
Project Director: H. Joseph Yost (20% effort)
Principal Investigator: Arnold Strauss, then Dan Kelly, Washington University, St. Louis

“Roles of Syndecans in Cardiac Left-Right Development”

National Institute of Health, R01 HL 61465-01
Period: 01/01/99 – 12/31/03, Direct Costs: \$800,801
Principal Investigator: H. Joseph Yost
(award returned to participate in above SCOR)

“Established Investigator Award”,

American Heart Association, 96002420
Period: 07/01/96 – 06/30/01, Direct Costs: \$298,750
Principal Investigator: H. Joseph Yost (40% effort)

“Regulation of Vertebrate Development by Maternal mRNA”

National Institutes of Health, R29 GM489200
Period: 08/01/92 – 09/30/98, Direct Costs: \$350,000
Principal Investigator: H. Joseph Yost

“Left-Right Cardiac Development: Genetic Analysis of Novel Laterality Mutations in Zebrafish”

American Heart Association Minnesota Affiliate
Period: 07/01/96 – 06/30/98, Direct Costs: \$96,000
Principal Investigator: H. Joseph Yost

“Molecular Roles of HSPGs in Cardiac Left-Right Development”

American Heart Association National, 94013920
Period: 07/01/94 – 6/30/97, Direct Costs: \$120,000
Principal Investigator: H. Joseph Yost

“Biological Left-Right Asymmetry”

McKnight Land-Grant Professorship
Period: 07/01/94 – 06/30/96, Direct Costs: \$61,500
Principal Investigator: H. Joseph Yost

“Regulation of Cardiac Asymmetry by Peptide Growth Factors”

American Heart Association Minnesota Affiliate
Period: 07/01/92 - 06/30/94, Direct Costs: \$45,900
Principal Investigator: H. Joseph Yost

“Control of Early Vertebrate Development by Localized Maternal mRNA”

American Cancer Society Institutional Research Grant, 0685-5656
Period: 01/01/92 – 12/31/92, Direct Costs: \$8,000

F. FELLOWSHIP AND AWARDS TO POSTDOCTORAL TRAINEES

“Molecular Role of Syndecan-2 in Cardiac Left-Right Development”

American Academy of Pediatrics Section on Cardiology Research Fellowship (only one awarded nationally each year)
Awarded to: Cammon B. Arrington, M.D., Ph.D.
Agency: American Academy of Pediatrics
Period: 07/01/2007- 06/30/2009, Direct Costs: \$135,000

“Role of Dorsal Forerunner Cells in Left/Right Patterning”

National Institutes of Health, 1 F32 HL076055-01
Awarded to: Jeffrey Amack, PhD
Agency: National Institutes of Health
Period: 01/22/2004-01/21/2007, \$139,200

“Function and Molecular Regulation of Cardiac Neural Crest in Zebrafish”

American Heart Association Postdoctoral Fellowship, 0120025Y
Awarded to: Mariko Sato, M.D.
Agency: American Heart Association Western Affiliate
Period: 07/01/2001- 06/30/2004, Direct Costs: \$135,000

Trainee on “Multidisciplinary Cancer Research Training Program”

National Institutes of Health, 5T32CA093247
Awarded to: John Parant, PhD.
Agency: National Institutes of Health
Period: 01/01/04-06/31/06

“2004 Susan Cooper Jones Memorial Research Award”

Annual award given to outstanding postdoctoral fellow
Awarded to: Ken Kramer, Ph.D.
Agency: Huntsman Cancer Foundation

“Molecular Roles of Xlefty in Pancreas Development”

National Institutes of Health Postdoctoral Fellowship, 1 F32 DK59713
Awarded to: William Branford, Ph.D.
Agency: National Institutes of Health
Period: 07/01/01- 06/30/04, Direct Costs: \$131,328

“Molecular Roles of Syndecans in Early Heart Development”

National Institutes of Health Postdoctoral Fellowship, 1 F32 HL10382
Awarded to: Ken Kramer, Ph.D.
Agency: National Institutes of Health
Period: 07/01/00- 06/30/2003, Direct Costs: \$119,796

“Patterning of Left-Right Asymmetry in Xenopus Heart”

American Heart Association Western States Affiliate Postdoctoral Fellowship
Awarded to: Ann Ramsdell, Ph.D.
Agency: American Heart Association
Period: 07/01/98 – 06/30/00, Direct Costs: \$64,600

“Molecular Mechanisms of Cardiac Development”

Sixtieth American Academy of Pediatrics Section on Cardiology Research Fellowship
(only one awarded nationally each year)
Awarded to: J.L. Lohr, M.D.
Agency: American Academy of Pediatrics
Period: 07/01/96 – 06/30/97, Direct Costs: \$30,000

“Mechanisms of Maternal Dorsal mRNA Localization”

National Institutes of Health Postdoctoral Fellowship, 1 F32 HL10382-01
Awarded to: J.L. Boore, Ph.D.
Agency: National Institutes of Health
Period: 10/01/92 – 03/31/96, Direct Costs: \$72,000

G. FELLOWSHIP AND AWARDS TO STUDENTS IN YOST LAB

“Defining the role of fgf8 in the left-right pathway and lateral plate mesoderm development”

American Heart Association Western States Affiliate Predoctoral Fellowship
Awarded to: Judith Neugebauer
Period: 07/01/05 – 06/30/07, Direct Costs: \$43,000

Trainee on “Developmental Biology Training Grant”

Awarded to: Kristel Raelson (Graduate Fellowship)
Period: 11/01/04-10/31/05, Direct Costs: \$44,000

“The Role of Ubiquitin Conjugation Enzyme In Left-Right Development”

American Heart Association Western States Affiliate Predoctoral Fellowship
Awarded to: Xinghao Wang (Graduate Fellowship, returned upon moving to Kansas)
Agency: American Heart Association
Period: 07/01/01 – 06/30/03, Direct Costs: \$43,000

“The Role of Dorsal Forerunner Cells in Embryonic Patterning of the Left-Right Axis”

American Heart Association Western States Affiliate Predoctoral Fellowship
Awarded to: Molly Wagner (Graduate Fellowship, returned upon graduation)
Agency: American Heart Association
Period: 07/01/00 – 06/30/02, Direct Costs: \$43,000

“AHA Undergraduate Summer Research Fellowship”

American Heart Association Western States Affiliate Undergraduate Fellowship
Awarded to: Colby Fernelius
Agency: American Heart Association Western Affiliate
Period: Summer 2001

“HCI Summer Undergraduate Research Fellowship”

Huntsman Cancer Institute Undergraduate Research Fellowship
Awarded to: Erin Prewitt
Agency: Huntsman Cancer Foundation
Period: Summer 2001

“AHA Undergraduate Summer Research Fellowship”

American Heart Association Western States Affiliate Undergraduate Fellowship
Awarded to: Victoria Alimov
Agency: American Heart Association
Period: Summer 2000

“HCI Summer Undergraduate Research Fellowship”

Huntsman Cancer Institute Undergraduate Research Fellowship
Awarded to: Patrick Sullivan
Agency: Huntsman Cancer Foundation
Period: Summer 2000

“Doctoral Dissertation Fellowship”

Maria Danos (Ph.D. Student in Yost Laboratory)
Agency: University of Minnesota Graduate School
Period: 07/01/96 – 06/30/97

“1996 Bacaner Research Award in the Basic Medical Sciences”

Awarded to: Kathleen Schroeder (Ph.D. Student in Yost Laboratory)
Agency: Minnesota Medical Foundation

“Howard Hughes Medical Institute Predoctoral Fellowship”

Awarded to: Amy Teel (Ph.D. Student in Yost Laboratory)
Agency: Howard Hughes Medical Institute
Period: 10/01/92 – 06/30/96

IV. SCHOLASTIC HONORS

National Institutes of Health Postdoctoral Fellowship (4/88 - 3/91)
American Heart Association, California Affiliate, Senior Research Fellowship (1991)
American Cancer Society Senior Postdoctoral Fellowship (1991)
McKnight Land-Grant Professorship (1994 - 1996)
American Heart Association Established Investigatorship (1996 - 2001)

V. UNIVERSITY ADMINISTRATIVE EXPERIENCE AND ACTIVITIES

SERVICE AT UNIVERSITY OF UTAH (1997 – present)

1997 - current Graduate Faculty member, Combined Program in Molecular Biology
1998 - 2003 Organizer, Faculty Chalk Talk Seminar Series, Dept. Oncological Science
1999 - 2003 Member, Health Sciences Research Cores Advisory Committee
2000 - 2002 Organizer, Research in Progress Seminar Series, Dept. Oncological Science
2000 - 2001 Director of Graduate Curriculum, Dept. Oncological Science
2000 - 2001 Member, Graduate Curriculum Committee, Program in Molecular Biology
2000 - 2001 Member, equipment redistribution committee, Huntsman Cancer Institute
2000 - 2003 Senator, University of Utah Academic Senate
2000 - current Member, M.D./Ph.D. Program Steering & Admissions Committee
2001 - current Director, Center for Children, Huntsman Cancer Institute
2001 - 2003 Chairman, Retention, Promotion, Tenure Committee, Dept. Oncological Sciences
2001 – current Review Panel, Primary Children’s Research Foundation
2001 – current Internal Advisory Board, Children’s Health Research Center
2001 – 2005 Program Leader, Pediatric Cancers, NCI Cancer Center Support Grant
2004 ad hoc member, Review Panel, U. Utah Funding Incentive Seed Grant Program
2005 – 2006 Program Co-Leader, Cell Response Program, NCI Cancer Center Support Grant
2002 – current Member, Genetics Training Grant Steering Committee
2002 – 2006 Member, School of Medicine Retention, Promotion and Tenure Committee
2004 – 2006 Chairman, School of Medicine Retention, Promotion and Tenure Committee
2003 – 2006 Member, HCI Informatics Steering Committee
2004 - 2006 Member (Dept Rep), Molecular Biology Graduate Program Steering Committee
2005- current Chairman, HCI Seminar Committee
2004- current Member, NIH Genetics Training Grant Steering Committee
2005 - 2006 Member, Search Committee for Chair, Department of Pharmaceutics and
Pharmaceutical Chemistry and George S. and Dolores Doré Eccles Presidential
Endowed Chair in Pharmaceutics and Pharmaceutical Chemistry, U. Utah
(successful recruit of Dr. David Grainger)
2006 Chairman, Departmental RPT committee (promotion of Susan Mango)

SERVICE AT UNIVERSITY OF MINNESOTA (1991 – 1997)

1991 – 1994 Departmental Seminar Committee
1991 – 1997 Graduate Faculty, MCDB&G Program (fusion of previous Cell & Developmental
Biology Program and Genetics Program)
1991 – 1994 Medical School Admissions interviewer
1992 – 1997 All-University Radiation Protection Advisory Committee
1992 Research Mentor, High School Minority Research Apprentice Program
1992 – 1993 Search Committee, "Martin Lenz Harrison Chair in Developmental Biology"
(successful recruits of Dr. Christopher Wylie and Dr. Janet Heasman)
1993 – 1997 Graduate Faculty, NIH Medical Scientist Training Program
1993 - 1995 Graduate Admissions Committee, Cell & Developmental Biology and Genetics
1993 – 1994 Faculty Search and Recruiting Committee, Developmental Biology Assistant
Professorships (resulting hires: Dr. David Zarkower and Dr. Vivian Bardwell)
1994 – 1997 Co-organizer, Center for Developmental Biology Research Meetings

- 1994 – 1997 Executive Committee, Center for Developmental Biology
- 1994 - 1996 University of Minnesota Pew Roundtable
- 1994 – 1997 Written Prelim Exam Grader, MCDB&G Graduate Program
- 1995 – 1997 Graduate Faculty, NIH Dental-Scientist Program
- 1995 Basic Science Research Space Task Force (to assign space in new building)
- 1995 – 1997 Executive Committee, U. M. Child Health Research Center
- 1995 - 1996 Chairman, Graduate Admissions Committee, Molecular, Cell, Developmental Biology & Genetics Graduate Program
- 1996 – 1997 Institute of Human Genetics Executive Committee
- 1996 – 1997 Medical School Dean's Research and Scholarship Advisory Committee

VI. PROFESSIONAL COMMUNITY ACTIVITIES

A. ADVISORY BOARDS AND POLICY PANEL LEADERSHIP

- 1999 Co-Chairman (ad hoc), National Peer Review Committee, American Heart Association
- 2000 -2002 Chairman, American Heart Association Western Affiliate Peer Review Panel
- 2000 -2004 American Heart Association Western Affiliate Research Policy Committee
- 2001 -2002 NIH Task Force on Pediatric Cardiovascular Disease
- 2002 -2005 Board of Directors, Society for Developmental Biology (nationally elected)
- 2005 -2008 Board of Directors, Society for Developmental Biology (nationally re-elected)
- 2004-present External Advisory Board, Nevada IdeA Network for Biomedical Research Excellence

B. SCIENTIFIC REVIEW COMMITTEE MEMBERSHIP

- 1995 NIH National Institute of Heart, Lung and Blood RFA Panel
- 1995-1997 American Heart Association, Minnesota Affiliate Peer Review Committee
- 1996-2000 American Heart Association, National Peer Review Committee
- 1996-2000 National Science Foundation, Developmental Biology Peer Review Panel
- 1998 National Institutes of Health, Cell Biology and Physiology -1 Study Section
- 1999-2002 American Heart Association, Western Regional Affiliate Peer Review Panel
- 2000 NIH National Institute of Heart, Lung and Blood PPG review panel
- 2000 NIH National Institute of Child Health and Human Development PPG Panel
- 2001-current Primary Children's Foundation Research Review Panel
- 2001-2005 National Science Foundation, Developmental Biology Peer Review Panel
- 2002 National Institutes of Health, ad hoc R01 panel
- 2003-2007 NIH DEV-1 Panel, charter member
- 2004 Review Panel, U. Utah Funding Incentive Seed Grant Program
- 2004 NIH RFA HL-04-008 "Molecular mechanisms underlying Diamond-Blackfan Anemia and other congenital bone marrow syndromes"
- 2004 NIH Special Emphasis (P01) Panel
- 2004 Chairman, NIH Hematology Special Review panel
- 2005 NIH Cardiovascular Differentiation and Development Study Section, ad hoc member

C. AD HOC EXTERNAL REVIEWER, NATIONAL AND INTERNATIONAL

- 1995-98, 2003-4, 06 March of Dimes Foundation
1995-1999 Israel Science Foundation, Israel Academy of Sciences and Humanities
1995 Natural Sciences and Engineering Research Council of Canada
1995 Medical Research Council of Canada
1996, 2001, 2006 National Science Foundation, Developmental Biology
1999,2000,02,04,06 Wellcome Trust Fund, United Kingdom
1999-00, 2005 Medical Research Council, United Kingdom
2000 National Science Foundation, Developmental Neuroscience
2003 Eli & Edythe L. Broad Foundation, Inflammatory Bowel Disease Grants
2003 W.M. Keck Foundation
2005 Vanderbilt University Intramural Discovery Grant Program
2005 Israeli-German Cooperation Program in Cancer Research
2005, 2006 Human Frontier Science Program
2007 An Bord Taighde Sláinte, Ireland

D. NATIONAL OR INTERNATIONAL SYMPOSIUM ORGANIZER

1. 2003 Co-Organizer, Conference on “Stem Cells Therapies: From Test Tube to Current Clinical Trials” Huntsman Cancer Institute, Salt Lake City, UT
2. 2002 Organizer, 12th Weinstein Cardiovascular Development Conference, Salt Lake City, UT
3. 1997 Co-organizer, Cold Spring Harbor Banbury Center, International Workshop on Handedness, Cold Spring Harbor Laboratory, NY
4. 1994 Chairman, Organizing Committee, 3rd Annual Symposium on Developmental Biology, Minneapolis, MN
5. 1993 Member, Organizing Committee, 2nd Annual Symposium on Developmental Biology, Minneapolis, MN
6. 1992 Member, Organizing Committee, 1st Annual Symposium on Developmental Biology, Minneapolis, MN

E. SYMPOSIUM SESSION CHAIRMAN

1. 9/03/05 15th International Society of Developmental Biologists Congress, Sydney, Australia
2. 04/11/05 CDB Symposium “Origin and Development of the Vertebrate Traits” Kobe, Japan
3. 3/11/04 Keystone Symposia “Cardiac Development and Congenital Heart Disease” Keystone, CO
4. 2/6/04 “Translocations in Sarcoma, Molecular to Clinical Implications” Huntsman Cancer Institute, Salt Lake City, UT
5. 9/21/03 3rd International Conference on Proteoglycans "Pathobiology of Proteoglycans" Parma, Italy
6. 9/12/03 West Coast Zebrafish Conference, Salt Lake City, UT
7. 12/01/02 6th International Symposium on Congenital Heart Disease, Tokyo, Japan
8. 6/4/01 Juan March Foundation International Symposium, Madrid, Spain.
9. 6/9/00 10th Weinstein Cardiovascular Development Conference, St. Louis, MO
10. 5/29/98 8th Weinstein Cardiovascular Development Conference, Nashville, TN

11. 12/15/97 "Left-right asymmetry: From Molecules to Clinic" Session, American Society for Cell Biology, Washington, DC
12. 11/8/97 "Positional Information in the Developing Heart," American Heart Association 70th Scientific Symposium, Orlando, FL
13. 6/8/96 6th Weinstein Cardiovascular Development Conference, Philadelphia, PA
14. 10/10/95 4th Annual University of Minnesota Symposium in Developmental Biology, St. Paul, MN
15. 3/28/92 Cell Biology, 6th National Conference on Undergraduate Research, Minneapolis, MN

VII. MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Association for the Advancement of Science
 American Association of Anatomists
 American Society for Cell Biology
 Society for Developmental Biology

XIII. TEACHING RESPONSIBILITIES

A. COURSES TAUGHT

2006 - 2007 (University of Utah)

Course Director, "Getting the Story behind the Seminar" (OncSci 6700-03 postponed to 2007)
 Human Embryology, 1st year Medical School, Cardiovascular Development (two lectures)
 K-30 course on Animal Models, one lecture

2005 - 2006 (University of Utah)

Cell Biology (MB6480), Course co-director and lecturer (four lectures)
 Pediatrics Grand Rounds "Stem Cells: Current Scientific Perspective"
 Molecular Biology Faculty Research Seminar
 K-30 course on Animal Models, one lecture

2004 - 2005 (University of Utah)

Cell Biology I (MB6480), two lectures
 K-30 course on Animal Models, one lecture
 Faculty participant, Developmental Biology Journal Club
 Molecular Biology Faculty Research Seminar

2003 - 2004 (University of Utah)

Cell Biology I (MB6480), two lectures
 Faculty participant, Developmental Biology Journal Club
 Molecular Biology Faculty Research Seminar

2002 - 2003 (University of Utah)

Course co-Director, Stem Cell Journal Club (First year elective)
 Animal models in Medical Research
 Faculty participant, Developmental Biology Journal Club
 Molecular Biology Faculty Research Seminar

2001 - 2002 (University of Utah)

Course Co-Director, lectures and discussions, Advanced Developmental Genetics (OncSci 6300)
Lecture, Undergraduate Biology 2870
Faculty participant, Developmental Biology Journal Club
Molecular Biology Faculty Research Seminar

2000 – 2001 (University of Utah)

Course Director, lectures and discussions, Wnts in Cancer and Development (OncSci 6700)
Faculty participant, Developmental Biology Journal Club
Molecular Biology Faculty Research Seminar

1999 - 2000 (University of Utah)

Course Co-Director, lectures and discussions, Advanced Developmental Genetics (OncSci 6300)
Lecture, Undergraduate Developmental Biology (UNC, Chapel Hill)
Faculty participant, Developmental Biology Journal Club
Molecular Biology Faculty Research Seminar

1998 - 1999 (University of Utah)

Faculty participant, Developmental Biology Journal Club
Molecular Biology Faculty Research Seminar

1997 –1998 (University of Utah)

Faculty participant, Developmental Biology Journal Club
Molecular Biology Faculty Research Seminar

1996 – 1997 (University of Minnesota)

Course Director, Molecular and Cellular Basis of Development (CBN 8215)
Lectures and Lab Instruction, Human Histology (CBN 5203)
Organizer, Developmental Biology Journal Club

1995 - 1996 (McKnight Sabbatical release from teaching)

Lectures and Lab Instruction, Itasca MCDB&G Graduate Course
Organizer, Developmental Biology Journal Club

1994 – 1995 (University of Minnesota)

Course Director, Molecular and Cellular Basis of Development (CBN 8215)
Lectures, Biochemistry, Molecular and Cell Biology (CBN 5204)
Lab Instruction, Human Histology (CBN 5203)
Lecture & Discussion, Developmental Neurobiology (CBN 8210)
Lectures and Lab Instruction, Itasca MCDB&G Graduate Course
Organizer, Developmental Biology Journal Club
Lecture, Undergraduate Biology Colloquium (BIO 1950)

1993 – 1994 (University of Minnesota)

Course Director, Molecular and Cellular Basis of Development (CBN 8215)
Lectures, Biochemistry, Molecular and Cell Biology (CBN 5204)
Lab Instruction, Human Histology (CBN 5203)
Lecture & Discussion, Developmental Neurobiology (CBN 8210)

Lectures and Lab Instruction, Itasca MCDB&G Graduate Course
Lecture, Cell Cycle Control (GCB 8060)
Lecture, Cell and Developmental Biology Graduate Program (GCB 8920)
Organizer, Developmental Biology Journal Club

1992 – 1993 (University of Minnesota)

Course Director, Molecular and Cellular Basis of Development (CBN 8215)
Lectures and Recitations, Biochemistry, Molecular and Cell Biology (CBN 5204)
Lectures and Lab Instruction, Itasca MCDB&G Graduate Course
Lecture and Discussion, Developmental Neurobiology (CBN 8210)
Lecture, Neuroscience Symposium for Neurology Residents
Lecture, Cell and Developmental Biology Graduate Program (GCB 8920)
Lecture, MD/Ph.D. Program
Lecture, Genetics Graduate Program
Organizer, Developmental Biology Journal Club

1991 – 1992 (University of Minnesota)

Lectures, Biochemistry, Molecular and Cell Biology (CBN 5204)
Lectures and Lab Instruction, Itasca MCDB&G Graduate Course
Lecture, Cell Cycle Control (GCB 8060)
Lecture, Developmental Biology (GCB 5061)
Lecture, Neuroscience Graduate Program
Organizer, Developmental Biology Journal Club

B. STUDENT RESEARCH SUPERVISED

Graduate Student Thesis Research in Yost Lab

Kathleen Elizabeth Schroeder (B.S., Univ. Wisconsin, Oshkosh)
Thesis Title: "Translational regulation of maternal mRNAs along the dorsal-ventral axis in early *Xenopus* development" 3/92 - 6/96.
Ph.D. awarded June 1996. Subsequently, MBA awarded at Duke University, 1998.
Current Employment: Drug Discovery and Market Analyst, Covance Inc.

Amy Lea Teel (B.S., Univ. Washington, Seattle)
Thesis Title: "Characterization of Syndecans, a family of heparan sulfate proteoglycans, in early *Xenopus* development" 7/93 - 6/96.
Ph.D. awarded June 1996.
Current Employment: Research Associate, University of Washington

Maria Christina Danos Breitenfeldt (B.S., Yale University)
Thesis Title: "Regulation of Cardiac Left-Right Asymmetry in *Xenopus laevis*" 7/93 – 5/97.
Ph.D. awarded May 1997.
Current Employment: Research Director, R&D Systems, Minneapolis, MN

Brian Allen Hyatt (B.S., Bethel College)
Thesis Title: "Molecular induction of the left-right axis" 7/95 – 11/98.
Ph.D. awarded November 1998

Subsequent Employment: Postdoctoral Fellow, University of Cincinnati
Current Employment: Assistant Professor, Bethel College

Molly Kristine Wagner (B.A., Luther College)
M. S. awarded May 2000
Current Employment: Ph.D. Student, University of Wisconsin

Xinghao Wang (B.S. XheJiang University, P.R. China, 1993; M.S. University of Kansas 2003)
Ph.D. Candidate, Molecular Biology Program

Patricia Sacayon (B.S. U.C. Santa Cruz, 1998)
M. S. awarded October 2006, Molecular Biology Program

Adam Cadwallader (B.S. Duquesne University, PA, 1999)
Ph.D. Candidate, Molecular Biology Program

Kristel Raelson (B.S. Purdue University, Indiana, 2002)
M.S. 2005, Molecular Biology Program

Erin Cadwalader (B.S. University of Wisconsin, 2003)
Ph.D. Candidate, Molecular Biology Program

Judith Neugebauer (B.S. U.C. Davis, 2002)
Ph.D. Candidate, Molecular Biology Program

Sheila Samson (B.S. University of the Philippines, 2002)
Ph.D. Candidate, Molecular Biology Program

Stephen George (B.A. University of Pennsylvania, 2001; M.S. University of Montana, 2003)
M.D. / Ph.D. Candidate

Graduate Student Rotation Research in Yost Lab

Kathleen Gibbons (Genetics rotation student), Spring 1992
Maria Danos (Genetics rotation student), Fall 1992
Julie Eschenlauer (Genetics rotation student), Winter 1993
Denise Robb (CDB rotation student), Spring 1993
Doug Bornemann (CDB rotation student), Spring 1993
Amy Teel (CDB rotation student), Summer 1993
Catherine Benson (Genetics rotation student), Fall 1993
Mike Zuck (M.D./Ph.D. rotation student), Winter 1994
Catherine Benson (Genetics rotation student), Spring 1994
Brian Hyatt (MCDBG rotation student), Summer 1994
Caroline Spike (MCDBG rotation student), Fall 1994
Gaunghui Chen (MCDBG rotation student), Winter 1995
Karl Clark (MCDBG rotation student), Fall 1995
Molly Wagner (Molecular Biology rotation student) Spring 1998
Chris Ricker (Molecular Biology rotation student) Fall 1999

Xhinghao Wang (Molecular Biology rotation student) Fall 1999
Bree Hill (Molecular Biology rotation student) Spring 1999
Andrew Pittman (Neuroscience rotation student) Fall 1999
Mark Smith (Molecular Biology rotation student) Spring 2000
Geoff Whitehead (Molecular Biology rotation student) Spring 2000
Lincoln Nadauld (MD/PhD Program rotation student) Summer 2000
Scott Witt (MD/PhD Program rotation student) Summer 2000
Mark Palfreyman (Molecular Biology rotation student) Summer 2000
Patricia Sacayon (Molecular Biology rotation student) Spring 2001
Hillary Crandell (MD/PhD Program rotation student) Summer 2001
Candice Kendell (Medical Student rotation) Summer 2001
Lei Wang (Molecular Biology rotation student) Winter 2003
Kristel Raelson (Molecular Biology rotation student) Spring 2003
Judith Neugebauer (Molecular Biology rotation student) Fall 2003
Josie Johnson (Molecular Biology rotation student) Fall 2003
Rui Wang (Molecular Biology rotation student) Fall 2003
Erin Cadwalader (Molecular Biology rotation student) Fall 2003
Jinjin Cai (Molecular Biology rotation student) Spring 2004
Timothy Dahlem (Molecular Biology rotation student) Spring 2004
Kelli Turner (Molecular Biology rotation student) Spring 2004
Hideaki Tomita (Molecular Biology rotation student) Spring 2004
Anna Verdina (Medical Student) Summer 2004
Stephen George (M.D./Ph.D. Program) Summer 2004
Maria Elias (Molecular Biology rotation student) Winter 2004
Megan Senchuck (Molecular Biology rotation student) Winter 2004
Wang Xu (Molecular Biology rotation student) Fall 2005

Graduate Student Ph.D. Thesis Committees

Wenhao Xu (CDB), thesis defense, 9/4/92
Brian McAdams (Neurobiology), thesis proposal exam, 7/9/92; thesis defense, 11/96
David Wade (Neurobiology), thesis proposal exam, 8/5/92
Maura McGrail (Genetics), thesis proposal exam, 3/4/93; thesis defense, 9/19/96
Scott Fahrenkrug (Genetics), thesis proposal exam, 5/10/93; thesis defense, 10/10/96
Mindy Mosley (CDB), thesis proposal exam, 5/11/93
Mark Pirner (MD/Ph.D.), thesis proposal exam, 10/20/93, thesis defense 6/95
Kathleen Schroeder (MCDBG), thesis proposal exam, 6/14/94; thesis defense, 6/4/96
Christopher Kaufman (MCDBG), thesis proposal exam, 6/27/94, 12/14/94
Luann Klemme (MD/Ph.D.), thesis proposal exam, 12/1/94; thesis defense, 5/20/96
Amy Teel (MCDB&G), thesis proposal exam, 4/26/95; thesis defense, 5/29/96
Maria Danos (MCDB&G), thesis proposal exam, 6/9/95
Brian Hyatt (MCDB&G), thesis proposal exam, 11/13/96; thesis defense, 11/98
Denise Robb (MCDB&G), thesis proposal exam, 10/20/95
Carla Finis (MCDB&G), thesis defense, 6/96
Michael Zuck (MD/Ph.D.), thesis proposal exam, 10/96
Chatchai Chinpaisal (Pharmacology), thesis proposal exam, 11/96
Lisa M. Goering (Molecular Biology Program), thesis 2/7/03
Xhinghai Li (Molecular Biology Program) thesis defense 10/12/01
Jill Howard (Molecular Biology Program) thesis defense 5/04/00

Clay Underwood (Molecular Biology Program) thesis defense 9/23/02
 Mike Portereiko (Molecular Biology Program) thesis defense 6/02/03
 Sarah Lange (Molecular Biology Program) M.S. earned Spring 2003
 Caroline McKeown (Molecular Biology Program) thesis 5/6/04
 Jennifer Rasmussen (Molecular Biology Program)
 Terry Van Ray (Neurobiology) thesis defense 7/8/03
 Dan Richardson (MB Program) thesis defense 10/13/03
 Lincoln Nadauld (M.D./Ph.D. Program) thesis defense 7/18/05
 Dustin Updike (MB Program) thesis defense 12/13/05
 Amy Prunuske (MB Program) thesis defense 1/27/06
 Chris Sans (Molecular Biology) thesis defense 7/12/06
 Lily Francis (Human Genetics) M.S. 6/06
 Dawne Shelton (MB Program)
 Joshua Wythe (MB Program)
 Kunal Rai (MB Program) thesis defense 7/18/06

Graduate Student Preliminary Examination Committees

1995

Doug Bornemann (MCDB&G)

1996

Brian Hyatt (MCDB&G)

Juan Abrahante-Llorens (MCDB&G)

1998

Mike Portereiko (Molecular Biol. Program)

Lisa Goering (MB Program)

Anna Paulson (MB Program)

Baird Ruch (MB Program)

1999

Dave Hutcheson (MB Program)

Matt Smith (MB Program)

Sarah Lange (MB. Program)

Terry Van Raay (Neuroscience Program)

Eric Hempel (MB Program)

2000

Yuanyuan Wu (MB. Program)

Miles Pufall (MB Program)

2001

Chris Sans (MB Program)

Mary Nelson (MB Program)

Xinghai Li (MB Program)

2002

Chris Pickett (MB Program)

Dustin Updike (MB Program)

Adam Cadwallader (MB Program)

Bargavi Thygarajan (MB Program)

April Sullivan (MB Program)

2003

Michelle Wallander

Hsiao-Fen Han

Dan Richardson

Sean Green

2004

Chris Peterson

Dawne Shelton

2005

Karyn Sheaffer

Jin Jin Cai

2006

Kin-Hoe Chow

Jingyu Huang

Natalie Dutrow

Maria Elias

Stephen George

Sheila Sampson

Leah Owen

Chuck Meeker

Marc Elgort

Ranajeet Saund

Ramya Viswanathan

Undergraduate or High School Student Research Projects in Yost Lab

Sally Hed (GCB 5590 Honors Research) Winter 1992
Murisiku Raifu (Minority High School Student Research Apprenticeship) Summer 1992
Catherine Park (U. Minnesota Undergraduate Thesis) 1994 – 1997
Nghì Lu (University of Utah ACCESS Program) Spring 1998
Carley Maak (Stanford University Undergraduate) Summer 1998
Michael Rich (Harvard Undergraduate, HCI Undergraduate Fellowship) Summer 1999
Russell Ray (U. Utah Undergraduate, Rhodes Scholar) Summer 1999
Carley Maak (Stanford University Undergraduate) Summer 1999
Victoria Alimov (University of Utah, AHA Undergraduate Fellowship) Summer 2000
Patrick Sullivan (University of Utah, HCI Undergraduate Fellowship) Summer 2000
Chris Lee (University of Pennsylvania Undergraduate) Summer 2000
Colby Fernelius (University of Utah, AHA Undergraduate Fellowship) Summer 2001
Erin Prewitt (University of Utah, HCI fellowship) Summer and Fall 2001
Rebecca Burton (New York University, AHA Undergraduate Fellowship) Summer 2002, 03
Lane Brian McMahan (University of Utah, HCI Undergraduate Fellowship) Summer 2003-04
Anmy Tran (University of Utah, ACCESS Student) 2002-04
Anoush Emrazian (University of Utah, ACCESS Student) 2003-present
Brant Nikolaus (University of Utah, AHA Undergraduate Fellowship) Summer 2005
David Muhlestein (Brigham Young University, AHA Undergraduate Fellowship) Summer 2005

C. Ph.D. or M.D. POSTDOCTORAL FELLOWS TRAINED

Jeffrey Boore (Ph.D., U. Michigan)
National Institutes of Health Postdoctoral Fellow, 10/92 - 4/96.
Current Employment: Department Head, Evolutionary Genomics, DOE Joint Genome Institute,
Lawrence Berkeley National Laboratory; Adjunct Associate Professor, UC Berkeley

Jamie L. Lohr (M.D., UC San Diego, 1988; A.B., University of California, Berkeley)
Child Health Research Center Research Postdoctoral Fellow, 8/95 – 8/97.
Current Employment: Assistant Professor, Dept. Pediatrics, University of Minnesota,
Minneapolis, MN

Jeffrey Essner (Ph.D., U. Minnesota, 1996; B.S. University of Iowa)
Postdoctoral Fellow, 8/96 - 10/96; Research Associate 8/97 – 6/02
2002-05 Director of Operations, Discovery Genomics, Minneapolis, MN
Current Employment: Assistant Professor, Iowa State University

Ann F. Ramsdell (Ph.D., Medical University of South Carolina 1996)
American Heart Association Postdoctoral Fellow, 8/97 – 5/00
Current Employment: Assistant Professor, Developmental Biology, Med. U. South Carolina,
Charleston, S.C.

Wendy Thomas (Ph.D., University of California, Irvine, 1995; B.A., University of Colorado,
Boulder) Postdoctoral Associate, 11/97 – 4/99.

Anne Pollack (Ph.D., University of California, San Francisco, 1996)
American Heart Association Postdoctoral Fellow, 7/00 – 7/01

Current Employment: Assistant Professor, Dept. Cell Biology and Anatomy, University of Arizona, Tucson, AZ

Kazushi Yasuda (M.D. Nagoya City University Medical School, 1995)
Postdoctoral Fellow, AHA funded, 10/01 – 10/03
Current Employment: Private Practice physician, Japan

Kenneth L. Kramer (Ph.D., University of Cincinnati, 1998, B.S., University of Dayton)
National Institutes of Health Postdoctoral Fellow, 1/98 – 6/04
Current Employment: Investigator (tenure-track), Developmental Biology Center of the National Heart, Lung, and Blood Institute (NHLBI), Bethesda, MD.

Robert “Wyc” Cheatham (M.D. Mercer University, Macon 1999)
CHRC Research Fellowship, 7/02 – 7/04
Current Employment: Neonatology Fellow, University of Utah

Brent Bisgrove (Ph.D., Indiana University, 1993; MSc. and B.Sc., University of Victoria)
Postdoctoral Fellow, 1/98 – present
Current Employment: Senior Research Associate, Yost Lab, HCI

William Branford (Ph.D., University of Cincinnati, 1997; B.S., University of Toledo)
National Institutes of Health Postdoctoral Fellow, 1/98 – 6/05
Current Employment: Assistant Professor, Wayne State University

Mariko Sato (M.D., Tohoku University, Sendai, Japan, 1987)
American Heart Association Postdoctoral Fellow, 1/99 – 6/06
Current Employment: Instructor, Dept. Pediatrics, University of Utah

Phillip Barnette (M.D. Oregon Health Sciences University, Portland, 1997)
Hematology Research Training Grant, 7/01 – 6/04
Current Employment: Assistant Professor of Pediatrics, University of Utah

Jeffrey Amack (Ph.D. University of Wisconsin, Madison 2001)
Postdoctoral Fellow, NRSA funded 9/02-present

John Parant (Ph.D., University of Texas, Houston 2001)
Postdoctoral Fellow, 9/03-present

Annita Peterson (Ph.D., Iowa State University, Ames 2004)
Postdoctoral Fellow, 6/05-present

Cammon Arrington (M.D./Ph.D. University of Iowa)
Postdoctoral Fellow, 10/05-present

Other Individuals mentored through collaborative research in Yost lab

Norman Hu, Research Assistant Professor, Department of Pediatrics
Susan Morelli, M.D., HHMI Fellow, Genetics and Neonatology, Department of Pediatrics

IX. PUBLICATIONS

A. ORIGINAL RESEARCH PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. J.D. Amack and H.J. Yost (2007) T-box gene spadetail plays an early role in zebrafish left-right patterning by controlling Kupffer's vesicle organogenesis. (submitted)
2. I-C. Tsai, J.D. Amack, Z-H. Gao, V. Band, H.J. Yost and D.M. Virshup (2007) A Wnt-CKI ϵ -Rap1 Pathway Regulates Gastrulation by Modulating E6TP1, a Rap GTPase Activating Protein. **Developmental Cell** 12, 335-47.
3. W. Luo, A. Peterson, B.A. Garcia, G. Coombs, B. Kofahl, R. Heinrich, J. Shabanowitz, D. F. Hunt, H.J. Yost and D.M. Virshup (2007) Protein phosphatase 1 regulates assembly and function of the beta-catenin degradation complex. **EMBO**, in press.
4. I-C. Tsai, M. Woolf, D.W. Neklason, W.W. Branford, H.J. Yost, R. W. Burt and D.M. Virshup (2007) Disease-associated casein kinase I delta mutation may promote adenomatous polyps formation via a Wnt/beta-catenin independent mechanism. **Int J Cancer** 120, 1005-12.
5. J.K. Takeuchi, H. Lickert, B.W. Bisgrove, M. Yamamoto, K. Chawengsaksophak, H. Hamada, H.J. Yost, J. Rossant and B.G. Bruneau (2007) Baf60c is a nuclear Notch signaling component required for the establishment of left-right asymmetry. **Proc Natl Acad Sci** 104:846-51.
6. A.B. Cadwallader and H.J. Yost (2007) Combinatorial expression patterns of heparan sulfate sulfotransferases in zebrafish: III. 2-O-sulfotransferase and C5-epimerases. **Developmental Dynamics** 236, 581-6.
7. L.D. Nadauld, S. Chidester, D. N. Shelton, K. Rai, T. Broadbent, I. T. Sandoval, P. W. Peterson, E. J. Manos, C. M. Ireland, H. J. Yost and D. A. Jones (2006). Dual roles for adenomatous polyposis coli in regulating retinoic acid biosynthesis and Wnt during ocular development. **Proc Natl Acad Sci** 103: 13409-14.
8. A.B. Cadwallader and H.J. Yost (2006) Combinatorial expression patterns of Heparan Sulfate Sulfotransferases in Zebrafish: II. The 6-O-Sulfotransferase Family. **Developmental Dynamics** 235, 3432-3437.
9. A.B. Cadwallader and H.J. Yost (2006) Combinatorial expression patterns of Heparan Sulfate Sulfotransferases in Zebrafish: I. The 3-O-Sulfotransferase Family. **Developmental Dynamics** 235, 3423-3431.
10. M. Sato, H.-J. Tsai and H.J. Yost (2006). *Semaphorin3D* regulates invasion of cardiac neural crest cells into the primary heart field. **Developmental Biology** 289, 12-21.
11. B.W. Bisgrove, B.S. Snarr, A. Emrazian, H. J. Yost (2005) Polaris and Polycystin-2 in dorsal forerunner cells and Kupffer's vesicle are required for specification of the zebrafish left-right axis. **Developmental Biology** 287(2):274-88
12. M. Yoshigi, L. M. Hoffman, C.C. Jensen, H.J. Yost, and M.C. Beckerle (2005) Mechanical force mobilizes zyxin from focal adhesions to actin filaments and regulates cytoskeletal reinforcement. **J. Cell Biol.** 171: 209-215.
13. L.D. Nadauld, D.N. Shelton, S. Chidester, H.J. Yost, and Jones, D.A. (2005) The zebrafish retinol dehydrogenase, *rdh11*, is essential for intestinal development and is regulated by the tumor suppressor adenomatous polyposis coli. **J. Biol. Chem.** 280, 30490-30495.

14. J.J. Essner, J.D. Amack, M.K. Nyholm, E.B. Harris, and H.J. Yost (2005) Kupffer's vesicle is a ciliated organ of asymmetry in the zebrafish embryo that initiates left-right development of the brain, heart and gut. **Development** 132: 1247-60.
15. J.D. Amack and H.J. Yost (2004) The T box transcription factor No Tail in ciliated cells controls zebrafish left-right asymmetry. **Current Biology** 14, 685-90.
16. L.D. Nadauld, I.T. Sandoval, S. Chidester, H.J. Yost, and D.A. Jones (2004) *Adenomatous polyposis coli* control of retinoic acid biosynthesis is critical for zebrafish intestinal development and differentiation. **J Biol Chem** 279, 51581-9.
17. W. Swiatek, I.C. Tsai, L. Klimowski, A. Pepler, J. Barnette, H.J. Yost, and D.M. Virshup (2004). Regulation of casein kinase I epsilon activity by Wnt signaling. **J Biol Chem.** 279, 13011-7.
18. Y. Chen, E. Mironova, L. Whitaker, L. Edwards, H.J. Yost, and A. Ramsdell (2004). ALK4 functions as a receptor for multiple TGF β -related ligands to regulate left-right axis determination and mesoderm induction in *Xenopus*. **Development Biology** 268, 280-94.
19. P. Liang, C.A. Jones, B.W. Bisgrove, L. Song, S.T. Glenn, H.J. Yost, K.W. Gross (2004) Genomic Characterization and expression analysis of the first nonmammalian rennin genes from zebrafish and pufferfish. **Physiology Genomics** 16, 314-22.
20. M. Yoshigi, E.B. Clark, H.J. Yost (2003). Quantification of stretch-induced cytoskeletal remodeling in vascular endothelial cells by image processing. **Cytometry** 55, 109-118.
21. M. Sato and H.J. Yost (2003). Cardiac neural crest contributes to cardiomyogenesis in zebrafish. **Developmental Biology** 257, 127-139.
22. K.L. Kramer, J.E. Barnette, and H.J. Yost (2002) PKC γ regulates syndecan-2 inside-out signaling during *Xenopus* left-right development. **Cell** 111, 981-990.
23. W.W. Branford and H.J. Yost (2002) Lefty dependent inhibition of Nodal and Wnt signaling pathways is essential for normal gastrulation. **Current Biology** 12, 2136-2141.
24. J.J. Essner, K.J. Vogan, M.K. Wagner, C.J. Tabin, H.J. Yost, M. Brueckner (2002). Conserved function for embryonic nodal cilia. **Nature** 418, 37-8.
25. D. Morgan, J. Goodship, J.J. Essner, K.J. Vogan, L. Turnpenny, H.J. Yost, C.J. Tabin, T. Strachan (2002). The left-right determinant inversin has highly conserved ankyrin repeat and IQ domains and interacts with calmodulin. **Human Genetics** 100(4): 377-84.
26. K.L. Kramer and H.J. Yost (2002) Ectodermal Syndecan-2 regulates left-right axis formation in migrating mesoderm as a cell non-autonomous Vg1 co-receptor. **Developmental Cell** 2, 115-124.
27. J. Liu, J. Stevens, C.A. Rote, H.J. Yost, Y. Hu, K.L. Neufeld, R.L. White, N. Matsunami (2001) Siah-1 mediates a novel B-catenin degradation pathway linking p53 to the Adenomatous Polyposis Coli protein. **Molecular Cell** 7, 927-936.
28. N. Hu, E. B. Clark, H.J. Yost (2001) Cardiac morphology and blood pressure in the adult zebrafish. **Anatomical Record** 264, 1-12.
29. X. Li, H.J. Yost, D.M. Virshup, J.M. Seeling (2001). Protein phosphatase 2A and its B65 regulatory subunit inhibit Wnt signaling in *Xenopus*. **EMBO J** 20, 4122-31.
30. B.W. Bisgrove, J.J. Essner, H.J. Yost (2000). Multiple pathways in the midline regulate concordant brain, heart and gut left-right asymmetry. **Development** 127, 3567-3579.
31. N. Hu, D. Sedmera, H.J. Yost, and E.B. Clark (2000). Structure and Function of the Developing Zebrafish Heart. **Anatomical Record** 260, 148-157.
32. W.W. Branford, J.J. Essner and H.J. Yost (2000). Regulation of gut and heart left-right asymmetry by context dependent interactions between *Xenopus* Lefty and BMP4 signaling. **Developmental Biology** 223, 291-306.

33. S. Angelo, J. Lohr, K.H. Lee, B. Ticho, R. Breitbart, H.J. Yost and D. Srivastava (2000). Conservation of sequence and expression of *Xenopus* and zebrafish dHAND during cardiac, branchial arch and lateral mesoderm development. **Mechanisms of Development** 95, 231-237.
34. J.J. Essner, W.W. Branford, J. Zhang and H.J. Yost (2000). Mesendoderm and left-right brain, heart and gut development are differentially regulated by *pitx2* isoforms. **Development** 127,1081-1093.
35. A.F. Ramsdell and H.J. Yost (1999). Cardiac looping and the vertebrate left-right axis: antagonism of left-sided Vg1 by a right-sided ALK2-dependent BMP pathway. **Development** 126, 5195-5205.
36. K.E. Schroeder, M.L. Condic, L.M. Eisenberg and H.J. Yost (1999). Spatially regulated translation in embryos: Asymmetric expression of maternal wnt-11 along the dorsal-ventral axis in *Xenopus*. **Developmental Biology** 214, 288-297.
37. B.W. Bisgrove, J.J. Essner, H.J. Yost (1999). Regulation of midline development by antagonism of *lefty* and *nodal* signaling. **Development** 126, 3253-3262.
38. J.L. Lohr, M.C. Danos, T.W. Groth and H.J. Yost (1998). Maintenance of asymmetric nodal expression in *Xenopus laevis*. **Developmental Genetics** 23, 194-202.
39. B.A. Hyatt and H.J. Yost (1998). The Left-Right Coordinator: The role of Vg1 in organizing left-right axis formation. **Cell** 93, 37-46.
40. J.L. Lohr, M.C. Danos, H.J. Yost (1997). Left-right asymmetry of a nodal-related gene is regulated by dorsoanterior midline structures during *Xenopus* development. **Development** 124, 1465-1472.
41. B.A. Hyatt, J.L. Lohr and H.J. Yost (1996). Initiation of vertebrate left-right axis formation by maternal Vg1. **Nature** 384, 62-65.
42. M.C. Danos and H.J. Yost (1996). Role of notochord in specification of cardiac left-right orientation in zebrafish and *Xenopus*. **Developmental Biology** 177, 96-103.
43. K.E. Schroeder and H.J. Yost (1996). *Xenopus* Poly (A) Binding Protein Maternal RNA is Localized during Oogenesis and Associated with Large Complexes in Blastula. **Developmental Genetics** 19, 268-276.
44. A.L. Teel and H.J. Yost (1996). Embryonic Expression Patterns of *Xenopus* Syndecans. **Mechanisms of Development** 59, 115-127.
45. M.C. Danos and H.J. Yost (1995). Linkage of cardiac left-right asymmetry and dorsal-anterior development in *Xenopus*. **Development** 121, 1467-1474.
46. H.J. Yost, C.R. Phillips, J.L. Boore, J. Bertman, B. Whalon, M.V. Danilchik (1995). Relocation of mitochondria to the prospective dorsal marginal zone during *Xenopus* embryogenesis. **Developmental Biology** 170, 83-90.
47. M.T. Galeazza, M.G. Garry, H.J. Yost, K.A. Strait, K.M. Hargreaves, and V.S. Seybold (1995). Plasticity in the synthesis and storage of substance P and calcitonin gene-related peptide in primary afferent neurons during peripheral inflammation. **Neuroscience** 66, 443-458.
48. H.J. Yost (1992). Regulation of vertebrate left-right asymmetries by extracellular matrix. **Nature** 357, 158-161.
49. H.J. Yost and S. Lindquist (1991). Heat shock proteins affect RNA processing during the heat shock response of *Saccharomyces cerevisiae*. **Molecular and Cellular Biology** 11, 1062-68.
50. H.J. Yost (1990). Inhibition of proteoglycan synthesis eliminates left-right asymmetry in *Xenopus laevis* cardiac looping. **Development** 110, 865-874.

51. H.J. Yost and S. Lindquist (1988). Translation of unspliced transcripts after heat shock. **Science** 242, 1544-1548.
52. H.J. Yost and S. Lindquist (1986). RNA splicing is interrupted by heat shock and is rescued by heat shock protein synthesis. **Cell** 45, 185-193.
53. A. Martinez-Arias, H.J. Yost and M.J. Casadaban (1984). Role of an upstream regulatory element in leucine repression of the *Saccharomyces cerevisiae leu2* gene. **Nature** 307, 740-742.

B. INVITED REVIEWS IN JOURNALS

54. B.W. Bisgrove and H.J. Yost (2006). The roles of cilia in developmental disorders and disease. **Development** 133, 4131-43.
55. W.W. Branford and H.J. Yost (2004) Nodal signaling: Cryptic Lefty mechanism of antagonism decoded. **Current Biology** 14: 341-3.
56. H.J. Yost (2003) Left-right asymmetry: nodal cilia make and catch a wave. **Current Biology** 13, 808-809
57. Kramer, K.L., and H.J. Yost (2003). Heparan sulfate core proteins in cell-cell signaling. **Annual Review of Genetics** 37, 461-84.
58. K.L. Kramer and H. J. Yost (2003) Cardiac Left-Right Development: Are the early steps conserved? **Cold Spring Harbor Symposium on Quantitative Biology** 149, 37-43.
59. B.W. Bisgrove, S.H. Morelli, H.J. Yost (2003). Genetics of Human Laterality disorders: Insights from vertebrate model systems. **Annual Review Genomics and Human Genetics**. April 15, 1-32.
60. H.J. Yost (2003) Halpern Explores Asymmetry Using Zebrafish as Model Organism. **American Association of Anatomists** 12 (2), 12-13.
61. S.M. Prescott, H.J. Yost (2002). The COXes of *Danio*: from mechanistic model to experimental therapeutics. **Proc. National Academy Science** 99, 9084-6
62. B.W. Bisgrove and H.J. Yost (2001) Classification of left-right patterning defects in zebrafish, mice and humans. **American Journal of Medical Genetics** 101, 315-323.
63. H.J. Yost (2001). Establishment of left-right asymmetry. **International Review of Cytology** 203, 357-381.
64. H.J. Yost (2000). Specification of cardiac mesenchyme and heart morphogenesis in vitro. **Methods in Molecular Biology** 136, 35-39.
65. J.L. Lohr and H.J. Yost (2000). Vertebrate model systems in the study of early heart development: *Xenopus* and zebrafish. **American Journal of Medical Genetics** 97, 248-257.
66. M.K. Wagner and H.J. Yost (2000). Left-right development: the roles of nodal cilia. **Current Biology**, 10:149-151.
67. H.J. Yost (1999). Diverse Initiation in a Conserved Left-Right Pathway? **Current Opinions in Genetics and Development** 9, 422-426.
68. A.F. Ramsdell and H.J. Yost (1998). Molecular mechanisms of vertebrate left-right development. **Trends in Genetics** 14, 459-465.
69. H.J. Yost (1998). The genetics of midline and cardiac laterality defects. **Current Opinions in Cardiology** 13, 185-189.
70. H.J. Yost (1998). Left-right development: from embryos to brains. **Developmental Genetics** 23, 159-163.
71. H.J. Yost (1998). Left-right development in *Xenopus* and zebrafish. **Seminars in Cell and Developmental Biology** 9, 61-66.

72. P.N. Bowers, M. Brueckner and H.J. Yost (1996). The genetics of left-right development and heterotaxia. **Seminars in Perinatology** 20, 577-588.
73. P.N. Bowers, M. Brueckner and H.J. Yost (1996). Laterality Disturbances. in "The Genetics of Congenital Cardiovascular Disease" (M. E. Pierpont and J. A. Towbin, Eds.) **Progress in Pediatric Cardiology** 6, 53-62.
74. H.J. Yost (1995). Vertebrate left-right development. **Cell** 82, 689-692.
75. H.J. Yost (1992). *Xenopus*: Getting Reorganized. (Review of "The Early Development of *Xenopus laevis*: An Atlas of the Histology" by P. Hausen and M. Riebessell) **Trends in Genetics** 8, 186.
76. H.J. Yost, R.B. Petersen and S. Lindquist (1990). RNA metabolism: strategies for regulation in the heat shock response. **Trends In Genetics** 6, 223-227.

C. BOOKS AND BOOK CHAPTERS

77. J.D. Amack and H.J. Yost (2007). Establishing cardiac left-right asymmetry. In "Heart Development and Regeneration" (R. P. Harvey and N. Rosenthal, eds). Academic Press, San Diego, in preparation.
78. J. Neugebauer and H.J. Yost (2007) Left-Right Axis Determination. Cardiovascular Development, (Rolf Bodmer, ed) Academic Press, in preparation.
79. H.J. Yost (2005) Microenvironment Provides Left-Right Instructions to Migrating Pre-cardiac Mesoderm. In Cardiovascular Development and Congenital Malformations : Molecular and Genetic Mechanisms (Michael Artman, D Woodrow Benson, Deepak Srivastava and Makoto Nakazawa, eds.) Blackwell Publishing, p 3 – 5.
80. M. Sato, H.J. Yost (2005) Neural Crest Cells Contribute to Heart Formation and Cardiomyogenesis in Zebrafish. In Cardiovascular Development and Congenital Malformations : Molecular and Genetic Mechanisms (Michael Artman, D Woodrow Benson, Deepak Srivastava and Makoto Nakazawa, eds.) Blackwell Publishing, p 150 - 152.
81. N. Hu, H. J. Yost, L. F. Barker, E.B. Clark (2005) Spatial Correlation of Conduction Tissue in the Ventricular Trabeculae in Developing Zebrafish. In Cardiovascular Development and Congenital Malformations : Molecular and Genetic Mechanisms (Michael Artman, D Woodrow Benson, Deepak Srivastava and Makoto Nakazawa, eds.) Blackwell Publishing, p 95 - 97.
82. A. Tran, M. Sato, H.J. Yost (2003) Morphological Analysis of Cardiac Defects in Neural Crest Deficient Zebrafish Embryos. Proceedings NCUR 2003. Univ. of North Carolina, Asheville, NC. Volume 3, 73.
83. A.F. Ramsdell and H.J. Yost (2001). Cardiac looping and the left-right axis: integrating morphological, molecular and genetic analyses of vertebrate left-right development. In Development of the Cardiovascular System, Volume 1 (R. J. Tomanek and R. Runyon, eds.) JAI Press, Greenwich, CT.
84. J.M. Opitz, H.J. Yost and E.B. Clark (2000). Syndromes, developmental fields and human congenital cardiovascular malformations. In "Etiology & Morphogenesis of Congenital Heart Disease: Twenty Years of Progress in Genetics and Developmental Biology" (E.B. Clark, M. Nakazawa, A. Takao, eds.) Futura, N.Y., p 311 - 320.
85. H.J. Yost (2000). Axes, situs and the vertebrate body plan. In "Etiology & Morphogenesis of Congenital Heart Disease: Twenty Years of Progress in Genetics and Developmental Biology" (E.B. Clark, M. Nakazawa, A. Takao, eds.) Futura, N.Y., p 3 - 10.

86. H.J. Yost (1998). Establishing cardiac left-right asymmetry. In "Heart Development" (R. P. Harvey and N. Rosenthal, eds). Academic Press, San Diego. p 373-389.
87. H.J. Yost (1995). Breaking Symmetry: Left-Right Cardiac Development in *Xenopus laevis*. in "Fourth International Symposium on Etiology & Morphogenesis of Congenital Heart Disease - Developmental Mechanisms" (M. M. Markwald, E. B. Clark, A. Takao, eds.) Futura, N.Y., p 505-511.
88. H.J. Yost (1991). Development of the left-right axis in amphibians. In "Biological Asymmetries and Handedness" (eds. G. Bock & J. Marsh). Ciba Foundation Symposium 162, p 165-181. J. Wiley, New York.
89. H.J. Yost, R.B. Petersen and S. Lindquist (1990). Posttranscriptional regulation of heat shock protein synthesis in *Drosophila*. In "Stress Proteins in Biology and Medicine" (R. I. Morimoto, A. Tissieres, and C. Georgopoulos, Eds.). Cold Spring Laboratory Press, p. 379-409.

X. INVITED SYMPOSIUM AND KEYNOTE LECTURES (ONLY 1991 - PRESENT)

1. 7/08/09 Symposium speaker, Third International Multiple Hereditary Exostoses Conference, San Diego, CA
2. 9/16/07 Symposium speaker, Fifth International Conference on Proteoglycans, Rio de Janeiro, Brazil
3. 8/4/07 Symposium speaker, FASEB Symposium: The Biology of Cilia and Flagella, Saxtons River, VT
4. 2/02/07 2nd Strategic Conference of Zebrafish Investigators, Asilomar, CA.
5. 8/29/06 Symposium speaker, McLaughlin Research Institute Annual Biomedical Research Workshop, Great Falls, MT
6. 5/19/06 Symposium speaker, "Is Asymmetry the Biological Ground State?" Developmental Dynamics Annual Symposium, Salt Lake City, UT
7. 10/28/05 Keynote speaker, Southwest Regional Developmental Biology Symposium, Boulder, CO
8. 9/03/05 Symposium speaker, 15th International Society of Developmental Biologists Congress, Sydney, Australia
9. 4/11/05 Symposium speaker, 3rd Annual Cell and Developmental Biology Symposium: Origin and Development of the Vertebrate Traits, Kobe, Japan
10. 3/07/05 Symposium speaker, Gordon Research Conference on Glycobiology, Ventura, CA
11. 9/16/04 Symposium speaker, International *Xenopus* Meeting, Woods Hole, MA
12. 6/14/04 Symposium speaker, Membrane Biology Gordon Conference, Bristol, RI
13. 6/04/04 Symposium speaker, Developmental Biology Symposium, University of California, San Francisco, CA
14. 3/11/04 Symposium speaker, Keystone Symposia-Cardiac Development and Congenital Heart Disease, Keystone, CO
15. 2/15/04 Symposium speaker, 15th Utah Conference on Pediatric Cardiovascular Disease, Deer Valley, UT
16. 2/6/04 Symposium speaker, Translocations in Sarcoma, Molecular to Clinical Implications, Huntsman Cancer Institute, Salt Lake City, UT
17. 12/4/03 Symposium speaker, Society for Glycobiology, San Diego, CA
18. 10/21/03 Symposium speaker, Third Annual Cardiovascular Symposium, UTSW, Dallas, Tx
19. 9/21/03 Symposium speaker, 3rd International Conference on Proteoglycans, "Pathobiology of Proteoglycans," Parma, Italy

20. 9/19/03 Keynote Address, Southwest Regional Developmental Biology Meeting, Salt Lake City, UT
21. 4/14/03 Symposium speaker, FASEB/AAA Symposium, session on "Gastrulation", San Diego, CA
22. 4/12/03 Symposium speaker, FASEB/EB Symposium "Zebrafish plumbing: heart and vessels" session, San Diego, CA
23. 3/21/03 Keynote speaker, West Coast Regional Developmental Biology Meeting, Friday Harbor Marine Biology Laboratory, WA
24. 12/01/02 Symposium speaker, 6th International Symposium on Congenital Heart Disease, Tokyo, Japan
25. 11/18/02 Symposium speaker, American Heart Association 75th Scientific Symposium, Chicago, IL
26. 8/14/02 Organizer and Moderator, American Heart Association Western Affiliate Undergraduate Round Table, Salt Lake City, UT
27. 7/8/02 Symposium speaker, Gordon Conference on Proteoglycans, Andover, NH
28. 6/12/02 Symposium speaker, 5th International Conference on Zebrafish Development and Genetics, Madison, WI
29. 5/30/02 Symposium speaker, Cold Spring Harbor Symposium on Quantitative Biology, NY
30. 8/14/01 Organizer and Moderator, American Heart Association Western Affiliate Undergraduate Round Table, Salt Lake City, UT
31. 7/23/01 Symposium speaker, West Coast Zebrafish Meeting, Seattle, WA.
32. 7/9/01 Symposium speaker, "The TGF-beta superfamily: signaling and development" FASEB Symposium, Tuscon, AZ.
33. 6/4/01 Symposium speaker, Juan March Foundation International Symposium, Madrid, Spain.
34. 5/18/01 Symposium Speaker, 11th Weinstein Cardiovascular Development Conference, Dallas, TX.
35. 4/2/01 Symposium speaker, "Patterning during Development: Insights from Zebrafish," American Association of Anatomists, Orlando, FL.
36. 3/22/01 Symposium Speaker, "Early Cardiac Development and Cardiac Laterality" Cardiovascular Development Symposium, Charleston, SC.
37. 3/2/01 Symposium speaker, 32nd Annual March of Dimes Clinical Genetics Conference, Miami, FL.
38. 11/12/00 Symposium speaker, "Model Organisms and Congenital Disease" American Heart Association 73rd Scientific Symposium, New Orleans, LA.
39. 9/30/00 Symposium speaker, 10th Robert J. Gorlin Conference on Dysmorphology, Minneapolis, MN.
40. 9/11/00 Symposium speaker, 4th Scientific Meeting of the Heart Failure Society of America, Boca Raton, FL.
41. 8/8/00 Invited participant, American Heart Association Western Affiliate Undergraduate Round Table, Salt Lake City, UT.
42. 6/9/00 Symposium speaker, 10th Weinstein Cardiovascular Development Conference, St. Louis, MO.
43. 6/3/00 Symposium speaker, UCSF Developmental Biology Symposium, San Francisco, CA.
44. 5/6/00 Presenter, American Heart Association Research Symposium, Dallas, TX.
45. 11/15/99 Symposium speaker, Rachford International Symposium "Transcriptional Control of Embryogenesis", Children's Hospital Medical Center, Cincinnati, OH.

46. 11/9/99 Symposium speaker, "State-of-the-Art" Lecture, American Heart Association 72nd Scientific Symposium, Atlanta, GA.
47. 11/7/99 Symposium speaker, "The Genetic Basis of Heart Formation: From Normal Development to Congenital Disease," American Heart Association 72nd Scientific Symposium, Atlanta, GA.
48. 8/9/99 Symposium speaker, Gordon Research Conference on Human Molecular Genetics, Newport, RI.
49. 3/14/99 Symposium speaker, 6th International Workshop on Fetal Genetic Pathology, Dead Sea, Israel.
50. 12/8/98 Symposium speaker, 5th International Symposium on Etiology & Morphogenesis of Congenital Heart Disease - Developmental Mechanisms, Tokyo, Japan.
51. 10/28/98 Symposium speaker, "Left-Right Axis and Associated Malformations" Session, American Society of Human Genetics Annual Meeting, Denver, CO.
52. 6/7/98 Symposium speaker, FASEB Summer Research Conference on "Intracellular RNA Sorting, Transport, and Localization." Snowmass, CO.
53. 5/29/98 Symposium speaker, 8th Weinstein Cardiovascular Development Conference, Nashville, TN.
54. 4/18/98 Symposium speaker, Session on "Early Development", Experimental Biology/American Association of Anatomists, San Francisco, CA.
55. 12/15/97 Symposium speaker, "Left-right asymmetry: From Molecules to Clinic" Session, American Society for Cell Biology, Washington, DC.
56. 11/18/97 Symposium speaker, Cold Spring Harbor Banbury Center, Workshop on Handedness, Cold Spring Harbor Laboratory, NY.
57. 11/8/97 Symposium speaker, "Positional Information in the Developing Heart" American Heart Association 70th Scientific Symposium, Orlando, FL.
58. 7/12/97 Symposium speaker, 5th International Congress of Vertebrate Morphology, Bristol, England.
59. 5/31/97 Symposium speaker, 11th Annual Biologic Basis of Pediatric Practice Symposium "Hearts, Hands, and Laterality: The Design of the Human Body" Deer Valley, UT.
60. 3/31/97 Symposium speaker, 61st Annual Scientific Meeting of Japanese Circulation Society, Tokyo.
61. 2/3/97 Workshop invited participant, Current Advances in Defining the Zebrafish Genome, Boston, MA.
62. 10/12/96 Symposium speaker, Symposium on Vertebrate Left-Right Asymmetry, Society for Pediatric Pathology, Houston, TX.
63. 8/21/96 Symposium speaker, American Heart Association Scientific Conference on the Molecular Biology of the Normal, Hypertrophied and Failing Heart, Snowbird, UT.
64. 7/12/96 Symposium speaker, Gordon Research Conference on Motile & Contractile Systems, Heniker, NH.
65. 6/7/96 Symposium speaker, 6th Weinstein Cardiovascular Development Conference, Philadelphia, PA.
66. 6/26/95 Symposium speaker, Gordon Research Conference on Developmental Biology, Andover, NH.
67. 6/3/95 Symposium speaker, 5th Weinstein Cardiovascular Development Conference, University of Rochester, NY.
68. 3/27/95 Symposium speaker, American Heart Association Scientific Conference on the Molecular, Cellular, and Functional Aspects of Cardiovascular Development, New Orleans, LA.

69. 11/26/93 Symposium speaker, "Fourth International Symposium on Etiology & Morphogenesis of Congenital Heart Disease - Developmental Mechanisms" Tokyo, Japan.
70. 6/25/92 Symposium speaker, Gordon Research Conference on Biological Regulatory Mechanisms, Holderness, NH.
71. 2/21/91 Symposium speaker, "Biological Asymmetries and Handedness "Ciba Foundation Symposium, London, UK.

XI. INVITED DEPARTMENTAL SEMINARS (ONLY 1991 - PRESENT)

1. 3/22/07 Texas A&M, Department of Biology, Collegeville, TX
2. 3/15/07 Dartmouth School of Medicine, Lebanon, NH
3. 2/16/07 University of Utah, Division of Pediatric Cardiology, Salt Lake City, UT
4. 12/06/06 University of Utah, Huntsman Cancer Institute and Department of Oncological Sciences, Salt Lake City, UT
5. 11/08/06 Harvard University School of Medicine, Department of Genetics & Boston Children's Hospital, Boston, MA
6. 3/23/06 Grand Rounds speaker "Stem Cells: Current Scientific Perspective" Department of Pediatrics, University of Utah, Salt Lake City, UT
7. 11/09/05 University of Michigan, Department of Internal Medicine, Ann Arbor, MI
8. 04/19/05 Blaffer Lecture, M.D. Anderson Cancer Center, Houston, TX
9. 03/01/05 The Burnham Institute, Division of Stem Cells & Regeneration, La Jolla, CA
10. 12/2/04 University of California, San Diego, Department of Cellular and Molecular Medicine, San Diego, CA
11. 4/1/04 Nora Eccles Treadwell Distinguished Lecture, Cardiovascular Research & Training Institute, University of Utah, Salt Lake City, UT
12. 3/29/04 European Molecular Biology Laboratory, Monterotondo (Rome), Italy
13. 2/11/04 The Samuel Lunenfeld Research Institute at Mt. Sinai Hospital, Toronto, Canada
14. 1/26/04 Johns Hopkins Medical School, Institute of Genetic Medicine, Baltimore, MD
15. 12/19/03 Huntsman Cancer Institute "Lab Lights" series, Salt Lake City, UT
16. 1/13/03 University of Texas Medical School, Department of Physiology, San Antonio, TX
17. 12/06/02 RIKEN Centre for Developmental Biology, Kobe, Japan
18. 12/03/02 University of Tokyo, Department of Cell Biology and Anatomy, Tokyo, Japan
19. 9/05/02 University of Colorado, Boulder, Department of Molecular, Cell and Developmental Biology, Boulder, CO
20. 12/14/01 University of California, San Diego, Department of Medicine, San Diego, CA
21. 11/28/01 University of Utah, Huntsman Cancer Institute Director's Series, Salt Lake City, UT
22. 10/25/01 University of Wisconsin, Department of Anatomy, Madison, WI
23. 5/16/01 Vanderbilt University School of Medicine, Department of Cell Biology, Nashville, TN
24. 04/05/01 Columbia University College of Physicians & Surgeons, Department of Biochemistry, New York, NY.
25. 3/28/01 University of Pennsylvania School of Medicine, Department of Medicine and Department of Cell and Molecular Biology, Philadelphia, PA.
26. 1/23/01 University of Utah, Department of Pediatrics, Salt Lake City, UT
27. 11/2/00 University of Rochester School of Medicine, Center for Human Genetics and Molecular Pediatric Disease, Rochester, NY.
28. 10/18/00 University of Utah, Department of Oncological Sciences, Salt Lake City, UT

29. 12/2/99 University of Arizona, Department of Biological Sciences, Tucson, AZ.
30. 9/27/99 University of Utah, Division of Pediatric Cardiology, Salt Lake City, UT.
31. 9/8/99 University of North Carolina School of Medicine, Department of Cell Biology and Anatomy, Chapel Hill, NC.
32. 4/16/99 University of Iowa, Department of Biological Sciences, Iowa City, IA.
33. 3/3/99 Stanford University, Department of Developmental Biology and Genetics, Palo Alto, CA.
34. 2/9/99 M.D. Anderson Cancer Center, Blaffner Seminar Series, Department of Molecular Genetics, Houston, TX.
35. 1/28/99 Washington University, Department of Cardiovascular Medicine, St. Louis, MO.
36. 11/18/98 Yale University, Department of Cell Biology, New Haven, CT.
37. 11/4/98 Harvard Medical School, Department of Genetics, Boston, MA.
38. 5/22/98 University of Utah, Department of Neurobiology and Anatomy, Salt Lake City, UT.
39. 5/9/97 University of Minnesota, Medical School Dean's Research Seminar, Minneapolis, MN.
40. 4/14/97 UT Southwest Medical Center, Hamon Center for Basic Cancer Research, Dallas, TX.
41. 4/10/97 Harvard Medical School, Department of Cell Biology, Boston, MA.
42. 4/1/97 Tokyo Women's College, Department of Pediatric Cardiology, The Heart Institute of Japan, Tokyo, Japan.
43. 1/16/97 University of Illinois Medical School, Department of Biochemistry, Chicago, IL.
44. 12/2/96 Washington University, Department of Pediatrics and Department of Molecular Biology and Pharmacology, St. Louis, MO.
45. 11/14/96 University of Colorado, Department of Molecular, Cell and Developmental Biology, Boulder, CO.
46. 11/8/96 Baylor Medical School, Department of Pathology, Houston, TX.
47. 10/23/96 University of Utah, Department of Pediatrics and Department of Neurobiology and Anatomy, Salt Lake City, UT.
48. 6/25/96 Harvard Medical School, Department of Microbiology and Molecular Genetics and Molecular Medicine Unit, Beth Israel Hospital, Boston, MA.
49. 6/24/96 Harvard Medical School, Massachusetts General Hospital Cardiovascular Research Center, Charleston, MA.
50. 5/21/96 Mount Sinai School of Medicine, The Brookdale Center for Molecular Biology, New York, NY.
51. 4/19/96 Medical University of South Carolina, Department of Cell Biology and Anatomy, Charleston, SC.
52. 4/10/96 University of Pennsylvania Medical School, Department of Cell and Developmental Biology, Philadelphia, PA.
53. 4/8/96 Fox Chase Cancer Center, Institute for Cancer Research, Philadelphia, PA.
54. 2/12/96 University of Maryland, Department of Biological Sciences, Baltimore, MD.
55. 1/5/96 University of Minnesota, Department of Cell Biology and Neuroanatomy, Minneapolis, MN.
56. 4/13/95 Macalester College, Department of Biology, St. Paul, MN.
57. 4/3/95 Cornell University Medical College, Department of Cell Biology and Anatomy, New York, NY.
58. 2/16/95 St. Cloud State University, Department of Biology, St. Cloud, MN.
59. 11/11/94 University of Wisconsin, Department of Zoology, Madison, WI.
60. 4/21/93 University of Minnesota, Department of Orthopedic Surgery, Minneapolis, MN.

61. 4/5/93 University of Minnesota, Department of Lab. Medicine & Pathology, Minneapolis, MN.
62. 2/18/93 University of Minnesota, Institute of Human Genetics, Minneapolis, MN.
63. 2/5/93 Carleton College, Department of Biology, Northfield, MN.
64. 1/25/93 University of Minnesota, Center for Wound Healing and Reparative Medicine, Minneapolis, MN.
65. 10/8/92 University of Colorado, Department of Molecular, Cell and Developmental Biology, Boulder, CO.
66. 1/9/92 University of Minnesota, Department of Genetics & Cell Biology, St. Paul, MN.
67. 5/22/91 Yale University School of Medicine, Department of Genetics, New Haven, CT.
68. 4/8/91 Bay Area Research in Frogs, University of California, Berkeley, CA.
69. 4/3/91 Yale University School of Medicine, Department of Anatomy, New Haven, CT.
70. 3/13/91 University of Virginia, Department of Biology, Charlottesville, VA.
71. 3/7/91 Columbia University, College of Physicians and Surgeons, Department of Anatomy & Cell Biology, New York, NY.
72. 2/15/91 Cambridge University, Department of Zoology, Cambridge, UK.
73. 2/11/91 University of Minnesota, Department of Cell Biology & Neuroanatomy, Minneapolis, MN.
74. 2/4/91 University of Rochester, Department of Biology, Rochester, NY.
75. 2/1/91 Thomas Jefferson University, Department of Biochemistry & Molecular Biology, Philadelphia, PA.

OTHER PRESENTATIONS, PUBLIC OR EDUCATIONAL

- 6/01-present Monthly patient and family tours, Huntsman Cancer Institute Center for Children
 2006-present Faculty Advisor "Piping Utes" University of Utah Bagpipe Club
 9/9-12/05 Teton Science School for 5th Grade Students, Jackson Hole, WY
 2/3/03 Leap 3 undergraduate student program, lab tour
 5/31/00 Lecture and lab tour, East High School AP Biology class, Salt Lake City, UT.