CURRICULUM VITAE THERESA ANN DEISHER, Ph.D.



Dr. Theresa Deisher's career has focused on discovering and developing new therapies for grievous human illness. Dr. Deisher obtained her PhD in Molecular and Cellular Physiology from Stanford University and has spent over 19 years in commercial biotechnology, working with such illustrious companies as Genentech, Repligen, ZymoGenetics, Immunex and Amgen, prior to founding AVM Biotechnology and Sound Choice Pharmaceutical Institute. AVM Biotechnology is the marquee prolife biotech company worldwide, certifying that it does not use morally illicit material in any process.

Dr. Deisher is an inventor on 23 issued US patents, and her discoveries have led to clinical trials of FGF18 for osteoarthritis and cartilage repair, and for Factor XIII for surgical bleeding. Dr. Deisher was the first person to discover adult cardiac derived stem cells, and has been a champion of adult stem cell research, both professionally and privately, for two decades. Dr. Deisher is a plaintiff in the US federal lawsuit to

prohibit use of federal tax payer dollars for embryo destructive research. She is a frequent lecturer on the stem cell issues delving into topics such as; research, clinical progress, policy, economics and ethics. She provides a breath of fresh air with a common sense approach which allows lay audiences to readily grasp the issues. Dr. Deisher has appeared on numerous radio shows, televised debates and live on The World Over Live with Raymond Arroyo.

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EDUCATION

1990-1993 Post-Doctoral Fellowship, University of Washington,

Department of Pathology/Hematology, Seattle, WA.,

Dr. John Harlan.

1985-1990 PH.D., Department of Molecular and Cellular Physiology,

Stanford University, Stanford, CA., Dr. Michael Fowler.

(Dissertation) Catecholamine-Induced Cardiotoxicity: Basic Mechanisms of Disease and Prevention. Evaluation of the Role of Beta-Adrenergic Stimulation, Cellular Calcium

Handling, and Oxygen Radical Production.

1980-1984 B.A., Department of Human Biology, Stanford University;

degree concentration in cardiovascular and exercise physiology.

Graduated with honors and distinction.

EXPERIENCE

Inventor on 23 issued US patents

Patented discoveries currently in clinical trials:

FGF18 (zFGF5) is currently in Ph I trials for osteoarthritis and Ph II trials for cartilage repair (Merck licensee), while Novo Nordisk (licensee) completed Ph II surgical bleeding clinical trials for Factor XIII in February 2011.

Selected list of Presentations and Awards:

Nov 10, 2012 recipient Fr. Spitzer's Healing the Culture 2012 Cultural Hero Award.

July 17 & 19, 2012 The Legacy Institute Radio Show with Carrie Abbott

July 11, 2012 CS Lewis Fellows Program on Science and Society

May 25, 2012 Autism One National Conference, Chicago, IL, plenary speaker

May 04, 2012, Legatus National Culture of Life conference speaker

April 21, 2012 Fort Myers, FL speaking event; co-speakers John Haas, George Weigel

March 26, 2012 Lafayette, LA speaking events

February 24, 2012 American Association of Prolife OBGyns annual meeting speaker

December 13, 2011: Bishop Blanchet HS guest AP Biology lecturer.

October 26, 2011 The Legacy Institute Radio Show with Carrie Abbott

July 2011 CS Lewis Fellows Program on Science and Society: "Common Sense Approach to Stem Cell Choices" and "Vaccines and Human Fetal DNA Contaminants."

June 2011: Catholic Professionals of Seattle: "The Commoditization of Human beings for Biomedical Research"

May 2011 : Cedar Park Assembly of God : "State of the Field of Stem Cells in the US"

April 2011: National Medical Students for Life Meeting "Vaccines and Aborted Fetal DNA Contaminants"

April 2011: Testimony to Minnesota Health and Human Services Committee on the use of aborted fetal cell lines for vaccine production and the resulting autism epidemic.

Dec 2010 Human Life International Medical Conference The Commoditization of America's Children for Biomedical Research.

Nov 10, 2010 The Legacy Institute Radio Show with Carrie Abbott

Catholic Medical Association meeting Oct 2010 Conscience Rights and Pharmaceutical Practices and Human Fetal Cell Lines for Biomedical Research and Drug Production

Discovery Institute Oct 2010 with Wesley Smith: Is the Wall Against Human Cloning about to Fall?

September 2010 multiple radio appearances regarding adult stem cell therapies as a plaintiff in Sherley vs Sebelius.

Oct 2010 What Are Stem Cells and What are They Good for? St. Hubert's Whidbey Island

August 2010 Live appearance on Raymond Arroyo World Over Live

August 2010 Laura Ingraham talk radio

April 2010 Presentations to Baker Diocese Right to Life Committees on stem cells and pharmaceutical manufacturing practices.

April 2010 Scientific expert testimony for MN Full Disclosure and Informed Consent Legislation (Brod).

February 2010 Assisted South Dakota FRC chapter in defeat of embryonic stem cell research legislation by individual meetings with KOLs and testimony to full committee.

Oct 2009, One More Soul Conference presenter

May 30, 2009 presentation to Seattle chapter of the Catholic Medical Association "Conscience Rights and Pharmaceutical Practices".

May 15, 2009 presentation to Yakima chapter of the Christian Medical and Dental Association "Conscience Rights and Pharmaceutical Practices".

March 10, 2009 Sound Insight radio program with Tom Curran discussing President Obama's Executive Order to fund embryonic stem cell research.

March 03, 2009 Testimony to Oregon Legislative Commerce Committee on stem cells.

February 10, 2009 Bellevue, WA., Rotary International "Big Macs, Vaccines and Informed Consent."

January 26, 2009 "The Science and Promise of Adult and Embryonic Stem Cell Research," Literary and Travel Women's Club, Seattle, WA.

January 23, 2009 "Fostering and Understanding Personhood in Scientific Stem Cell Research," American Life League conference, Washington, D.C.

January 21, 2009 "March for Life Plenary Session," Washington, D.C.

October 03, 2008, presentation to the Physicians Resource Council, Colorado Springs, CO.

September 26, 2008 University District Seattle, WA., Rotary International "Big Macs, Vaccines and Informed Consent."

September 11, 2008 presentation to United States Congressional Values Action Team.

September 09, 2008, presentation to United States Senate Values Action Team.

September 08, 2008, radio interview on "Business Off the Beaten Path: Blog Talk Radio with Mary Anne Dorward".

June 26, 2008, Focus on the Family, Colorado Springs, CO "Vaccines, Abortion and the conception of AVM Biotechnology to provide alternatives."

June 04, 2008, radio interview with Martha Kleder, Concerned Women for America, "Embryonic Stem Cell Research Bill Resurfaces."

March 2008, Catholic Medical Association "Spotlight on Theresa Deisher, AVM Biotechnology." by John Brehany.

March 23, 2008, National Catholic Register "Seattle Scientist Launches Pro-Life Biotech Company." by Steve Weatherbe.

March 04, 2008, Sacred Heart Radio, Cincinnati, OH "Stem cell interview."

February 11, 2008 "The Ethics and Promise of Stem Cells," University of Washington Medical Students for Life.

2007 Distinguished Graduate, Assumption-St. Bridget School.

Theresa Deisher, "Conversations with Fr. Bob" December 2007 The Conversations with Father Bob

Theresa Deisher, "The Science and Promise of Adult and Embryonic Stem cells" Assumption Church November 2007

Theresa Deisher, September 2007 presentation to Group Health Senior Association "Stem Cells, what are they and what are they good for?"

Theresa Deisher, panel participant, "Stem Cells, what are they and what are they good for?" Assumption Church May 2007.

Theresa Deisher, panel participant Channel 9 KCTS Connects March 15, 2007 stem cell discussion with Ron Reagan, Jr., Jim McManus, Pastor Joe Fuiten.

Theresa Deisher, panel participant, February 2007 presentation to Washington State Republican caucus "Which stem cell to choose?"

Theresa Deisher, panel participant, January 2007 presentation to Positive Christian Agenda "Current state of stem cell research and where it is going."

Theresa Deisher, panel participant, October 2006 MIT forum on stem cells.

Theresa Deisher, "Stem Cell Research: What it is and why it matters." Panel participant, May 2006, Wa State Mainstream Republicans Convention.

Theresa Deisher, Amgen, Inc. Dept. of Inflammation, Seattle, WA., "4-1BB Beyond Co-stimulation: The 4-1BB Pathway Directly Modulates Cardiac Contractility and Apoptosis" (University of Washington/ Fred Hutchison Cancer Research Center/ Amgen annual symposium 2006 invited oral presentation).

Theresa Deisher, Amgen, Inc., Dept. of Inflammation, Seattle, WA., "Cardiovascular Research at Amgen WA Site: The Set-Up, The Event and The Outcome". (invited seminar, University of British Columbia, iCapture Centre, June 2005).

Stefanie Bonigut*, Kimberly Alford*, Bernie Buetow, Xiaozhen Wang, and **Theresa Deisher** Amgen Inc., Dept of Inflammation, Seattle, WA., The immune co-stimulatory molecule, 4-1BB, is expressed by damaged cardiac interstitial cells, and 4-1BB/4-1BBL signaling contributes to Adriamycin-induced cardiomyopathy in mice. (2003 American Heart Association Scientific Sessions oral presentation given by T. Deisher). Circulation 2003, 108(17) 276.

B Yanagawa¹, S Bonigut², H Luo¹, T White³, GF Schreiner³, J Yuan¹, M Zhang¹,
P Cheung¹, **T Deisher**², T Daniel², DC Yang¹, BM McManus¹ **GENE PROFILING IN CVB3-INFECTED MOUSE HEARTS** Research Award NW CV Frontiers Feb 2-4, 2003

California Young Investigator Cardiovascular Research Symposia. Jul 27-29, 1989. Santa Barbara, California.

California Young Investigator Cardiovascular Research Symposia. Aug 11-13, 1988. Santa Barbara, California.

RESEARCH

January 2008 - AVM Biotechnology, LLC

CEO, Founder and Research and Development Director

Dedicated to safe, effective, affordable and ethical human therapeutics, focusing initially on

regenerative medicine and vaccinations.

June 2008- Sound Choice Pharmaceutical Institute

President

Committed to providing education, scientific research, development and resources to encourage safe

and moral medicines and therapeutics.

Sept 2006 – Oct 2007 CellCyte Genetics Corporation

Vice President, Research and Development

July 2002 – July 2006 Amgen Inc., Seattle, WA.

Principal Scientist, Inflammation Department.

- Interdepartmental Project Leader
- Directly supervised four staff from mid- to senior-research associate level.
- Post-Doctoral Advisor to Xiaozhen Wang, who is currently a Research Scientist with Centocor/Eli Lilly in the Stem Cell Department.
- Summer intern mentor for two students evaluating the impact of co-stimulatory molecules and GHSR agonists on cardiac contractility.
- Co-contributor to two patents related to the use of anti-cytokine therapies for heart failure. Lead inventor on a patent describing the mobilization and use of ckit+ stem cells for cardiac repair.

Responsible for a multi-disciplinary team working on the biology and commercial development of novel co-stimulatory pathways involved in the initiation and progression of cardiac failure. My research interests encompassed stem cell therapies for myocardial regeneration, the role of cytokine and co-stimulatory molecules in heart failure (ischemic, myocarditic and cytotoxic), and novel ectonucleotidases for stroke, atherosclerosis and plaque rupture.

My research group introduced non-invasive imaging technologies to the company, including ultrasound (echocardiography) and near-infrared imaging. We were named an official 'Site of Excellence' by Philips Medical for our pioneering work in standardizing rodent echocardiography methods.

Additional responsibilities have included presentations to the research review board, and serving on inter-departmental task forces to evaluate in-licensing opportunities, internal research opportunities, and new clinical indications. Academic research collaborations have included: Dr. David Pinsky, Chief of Cardiology, University of Michigan, Dr. Myron D. Ginsberg, University of Miami, and Dr. Bruce McManus, iCapture Centre University of British Columbia.

October 2000-July 2002

Immunex Corp, Seattle, WA.

Senior Staff Scientist, Vascular Biology

- Project Leader Anti-Thrombotics
- Project Leader Inflammation and Myocardial Repair Responsibilities were carried over to my position at Amgen, Inc.

1995-2000 1998-2000 1995-1998

ZymoGenetics, Inc., Seattle, WA.

Senior Scientist, Cardiovascular Biology

Scientist, In Vivo Biology

- Project Leader FGF18
- Directly supervised two staff research associates
- Contributed to the filing of over 15 patents related to the discovery of novel ESTs and proteins.

At ZymoGenetics I directed a research program focused on the discovery of cardioprotective compounds for ischemic or cytotoxic damage. I was responsible for the development of a micro-surgical model of ischemia-reperfusion, in addition to executing established models of heart failure such as catecholamine or anthracycline administration. My work in this area lead to the discovery of a novel regenerative growth factor (licensed to Serono for development) and to the identification of adult cardiac stem cells (see patent list).

Additional areas of research at ZymoGenetics included hematopoiesis, diabetes and obesity. Academic collaborators included Dr. Michael Schneider, Baylor College of Medicine, Dr. Brad Olwin, University of Colorado, Dr. Michael Fowler, Stanford University.

1993-1995

Research Scientist, Repligen Corp., Cambridge, MA., Inflammation Department.

- Directly supervised four staff from junior associates to scientist positions.
- Served on Repligen/Eli Lilly joint development committee.

Responsibilities included the development of research and clinical assays in support of Phase I and Phase II clinical trials of an anti-CD11b mAb for ischemia-reperfusion injury. Research interests included neutrophil-mediated inflammation and hematopoiesis.

1988-1990

Research Associate, **Genentech, Inc**. South San Francisco, CA., Cardiovascular Pharmacology Department

Developed in vitro and in vivo assays in support of the gpIIb/IIIa program. Other research areas involved plaque rupture and the development of models and methods to study the response of vascular smooth muscle to balloon injury.

1983-1984

Honors Student, Dr. H. Craig Heller (mentor), Human Biology Department, Stanford University; honors thesis research on central versus spinal control of thermoregulation.

1980-1981

Research Assistant, Department of Medicine, Stanford University.

Data compilation and analysis for the Stanford High Blood Pressure Prevention Study

Group.

Deisher, T.A.

Academic Teaching Experience

1988-1989 Undergraduate Honors Thesis Advisor 1986-1987 Undergraduate Honors Thesis Advisor

Fall 1987 and 1988 Lecturer, Department of Physiology, Stanford University School of Medicine"Vascular

Smooth Muscle" series (graduate/medical school course)

1985-1986 & 1984-1985 Teaching Assistant, Department of Biology, Human Physiology course, Stanford

University (undergraduate course).

SOCIETY MEMBERSHIPS

1998 - present AHA member: Council on Basic and Clinical Science

1999 - present Heart Failure Society of America member

GRANTS and AWARDS

Healing the Culture 2012 Hero Award Recipient.

M.J. Murdock Charitable Trust, February 2010." Population, Bioinformatics and In Vitro Studies into the Relationship between Residual Human DNA Vaccine Contaminants and Autism." \$500,000.00

American Heart Association, California Affiliate Grant-In-Aid recipient, 1988. "Biochemical Aspects of Catecholamine-Induced Cardiotoxicity." \$30,000

American Heart Association, California Affiliate Grant-In-Aid recipient, 1989. "Biochemical Aspects of Catecholamine-Induced Cardiotoxicity." \$30,000 (renewed)

BIBLIOGRAPHY

Selected MANUSCRIPTS and Scientific Presentations:

LaMadrid, M, Brown C, **Deisher T**: "US Autistic Disorder (1970-2002) Changepoints Do Not Coincide With Changepoints for Suspected Sociologic and Environmental Causes", submitted for publication to Autism Research March 16, 2011.

International Meeting for Autism Research May 2010, poster presentations of abstracts below:

"Computational Detection of Homologous Recombination Hotspots in X-Chromosome Autism Associated Genes,"

"Quantitative Evaluation of Sociologic Factors That Can Lead to Apparent Increases in Autism Prevalence"

Effects of granulocyte-colony stimulating factor on bone marrow-derived progenitor cells in murine cardiac transplantation.

Rezai N, Deisher TA, Heine HL, Wang X, Corbel SY, Leung J, Kerjner A, Rossi FM, Podor TJ, McManus BM. Cardiovasc Pathol. 2010 Jan-Feb;19(1):36-47. Epub 2009 Jan 14

Deisher TA, "Why Are We Celebrating Reprogramming of Adult Cells?" Celebrate Life, March-April 2008, pages 34-35.

Caroline T.Y. Cheung¹, Theresa Deisher², Honglin Luo¹, Bobby Yanagawa¹, Stefanie Bonigut², Amrit Samra¹, Hongyan Zhao¹, Elizabeth Walker¹, Bruce M. McManus.

Neutralizing Anti-4-1BBL Treatment Improves Cardiac Function in Viral Myocarditis. Lab Investigations 2007 v87(7) 651-661.

Yanagawa B, Taylor L, **Deisher TA**, Ng R, Schreiner GF, Triche TJ, Yang D, McManus BM. Affymetrix oligonucleotide analysis of gene expression in the injured heart. Methods Mol Med. 2005;112:305-20.

Sean P. Mazer, Matthew C. Hyman, Diane Bouïs, **Theresa A. Deisher**, Kim E. Olson, M. Johan Broekman, Aaron J. Marcus, David J. Pinsky. "Ecto-enzymatic suppression of atherogenesis by CD39." Submitted to Nature June.

Xiaozhen Wang, Stefanie Bonigut, Kimberly Alford, Dong Xia, Eric Butz, **Theresa A. Deisher** "Inhibition of the tumor necrosis factor receptor family member, 4-1BB, alleviates doxorubicin-induced apoptosis and improves cardiac function in mice." under revision for resubmission to Circulation 2007.

Ludmila Belayev, Larissa Khoutorova, **Theresa A. Deisher**, Andrey Belayev, Raul Busto, Yongbo Zhang, Weizhao Zhao, and Myron D. Ginsberg, "The Neuroprotective Effect of SolCD39, A Novel Platelet Aggregation Inhibitor, On Transient Middle Cerebral Artery Occlusion In Rats". Stroke 34:758-763, 2003.

Whitmore TE. Maurer MF. Sexson S. Raymond F. Conklin D. **Deisher TA**. "Assignment of fibroblast growth factor 18 (FGF18) to human chromosome 5q34 by use of radiation hybrid mapping and fluorescence in situ hybridization". Cytogenetics & Cell

Genetics. Vol 90(3-4) (pp 231-233), 2000.

Deisher, T.A.: "Cardiac-derived Stem Cells". I Drugs 3(6)483-488, 2000.

Ghosh D. **Deisher TA**. Ellsworth JL. "Statistical methods for analyzing repeated measures". Journal of Pharmacological & Toxicological Methods. 42(3):157-62, 1999.

Grossman A, Lenox J, **Deisher TA**, Ren HP, Humes JM, Kaushanksy K and Sprugel KH: "Synergistic Effects of Thrombopoietin and G-CSF on Neutrophil Recovery in Myelosuppressed Mice", Blood 88(9) 3363-3370, 1996.

McCarty JM, Yee EK, **Deisher TA**, Harlan JM and Kaushanksy K: "Interleukin-4 induces endothelial vascular cell adhesion molecule-1 (VCAM-1) by an NF-®B independent mechanism". FEBS Letters 372(2-3) 194-198, 1995.

Deisher TA, Bristow MR, Billingham ME and Fowler MB: "Spontaneous-reversibility of catecholamine-induced cardiotoxicity in rats". Am J Cardiovasc Pathol 5(1) 79-88, 1994.

Deisher TA, Sato TT, Pohlman TH and Harlan JM: "A Protein Kinase C Agonist, Selective for the £1 isozyme, Induces E-selectin and VCAM-1 Expression on HUVEC but does not Translocate PKC". Biochem Biophys Res Comm 193(3) 1283-1290, 1993.

Deisher TA and Harlan JM: "Inhibitors of topoisomerase II prevent cytokine-induced expression of vascular cell adhesion molecule-1, while augmenting the expression of endothelial leukocyte adhesion molecule-1 on human umbilical vein endothelial cells". Cell Adhesion and Communication 1:133-142, 1993.

Deisher TA, Garcia I and Harlan JM: "Cytokine-induced adhesion molecule expression on human umbilical vein endothelial cells is not regulated by cyclic adenosine monophosphate accumulation". Life Sciences 53(4) 365-370, 1993.

Deisher TA, Haddix TL, Montgomery KF, Pohlman TH, Kaushansky K and Harlan JM: "Protein kinase C differentially regulates the expression of ELAM-1 and VCAM-1 in human umbilical vein endothelial cells". FEBS Letters 331(3) 285-290, 1993.

Deisher TA, Narita H, Ginsburg R, Zera P, Billingham M, Hoffman BB: "Epinephrine-induced cardiac injury in rats: protective effect of clentiazem, a new calcium antagonist".

J Pharmacol Exp Ther 266(1) 262-269, 1993.

Barker PL, Bullens S, Bunting S, Burdick DJ, Chan KS, **Deisher T**, Eigenbrot C, Gadek TR, Gantzos R, Lipari MT: "Cyclic RGD peptide analogues as antiplatelet antithrombotics". J Med Chem 35(11) 2040-2048, 1992.

Dennis MS, Henzel WJ, Pitti RM, Lipari MT, Napier MA, **Deisher TA**, Bunting S, Lazarus RA: "Platelet GP IIb-IIIa Antagonists from Snake Venoms: Evidence for a Family of Platelet Aggregation Inhibitors". Proc Nat'l Acad Sci 87(7) 2471-2475, 1990.

Deisher T, Mankani S, Hoffman BB: "Role of cAMP-dependent protein kinase in the diminished beta-adrenergic responsiveness of vascular smooth muscle with increasing age". J Pharm Exp Ther: 249(3)812-819, 1989.

Bristow M, Sandoval R, Gilbert M, **Deisher T**, Minobe W, Rasmussen R: "Myocardial Aplha- and Beta-Adrenergic Receptors in Heart Failure: Is Cardiac Derived Norepinephrine the Signal?" Eur Heart J: 9(sH)35-40,1988.

PATENTS:

Title	Publication number	Publication date	Inventor(s)	Applicant(s)	European classification
			SHEPPARD PAUL O [US]; BAINDUR NAND [US];		
			DEISHER THERESA A [US]; BISHOP PAUL D		
Disintegrin homologue, MAHBP	US2003153064 (A1)	8/14/2003	[US]; TAFT DAVID W [US]	ZYMOGENETICS INC [US]	C12N9/64F2C24
			SHEPPARD PAUL O [US]; JASPERS STEPHEN R		
			[US]; DEISHER THERESA A [US]; BISHOP PAUL		
SGIP peptides	US2003176640 (A1)	9/18/2003	D [US]	ZYMOGENETICS INC [US]	C07K14/47; C07K14/575
ow-power noise			DEISHER MICHAEL E [US]; MORRIS ROBERT W		
characterization over a	US2004002860 (A1)	1/1/2004	[US]	INTEL CORP [US]	G10L21/02A1; G10L11/00A
JSE OF TUMOR NECROSIS				IMMUNEX CORP [US];	
FACTOR INHIBITORS TO TREAT			WARREN MARSHELLE S [US]; DEISHER	WARREN MARSHELLE S [US];	
CARDIOVASCULAR DISEASE	WO02080847 (A2)	10/17/2002	THERESA A [US]	DEISHER THERESA A [US]	A61K38/17C; G01N33/68V
Use of tumor necrosis factor			WARREN MARSHELLE S [US]; DEISHER	WARREN MARSHELLE S, ;	
inhibitors to treat cardiovascular	US2004072805 (A1)	4/15/2004	THERESA A [US]	DEISHER THERESA A	G01N33/68V
			DEISHER THERESA A [US]; CONKLIN DARRELL C		
			[US]; RAYMOND FENELLA C [US]; BUKOWSKI		
			THOMAS R [US]; HOLDERMAN SUSAN D [US];		
Novel FGF homologs	US2003008351 (A1)	1/9/2003	SHEPPARD PAUL O [US]	ZYMOGENETICS INC [US]	C07K14/50
Testis specific transcription					
factor ZGCL-1	US2002160487 (A1)	10/31/2002	YEE DAVID P [US]; DEISHER THERESA A [US]	ZYMOGENETICS INC [US]	C07K14/47A1
			JASPERS STEPHEN R; SHEPPARD PAUL O;		
Zsig33-like peptides	AU6303201 (A)	11/26/2001	DEISHER THERESA A; BISHOP PAUL D	ZYMOGENETICS INC	C07K14/63
				SHEPPARD PAUL O, ;	
			SHEPPARD PAUL O [US]; BAINDUR NAND [US];	BAINDUR NAND, ; DEISHER	
Disintegrin homologs	US2002072102 (A1)	6/13/2002	DEISHER THERESA A [US]; BISHOP PAUL D [US]	THERESA A, ; BISHOP PAUL D	C12N9/64F2C24
			SHEPPARD PAUL O; BAINDUR NAND; DEISHER		
Disintegrin homologs.	ZA200007766 (A)	12/21/2001	THERESA A; BISHOP PAUL D	ZYMOGENETICS INC	C12N9/64F2C24
METHOD OF FORMING A PEPTIDE-			SHEPPARD PAUL O; JASPERS STEPHEN R;		
RECEPTOR COMPLEX WITH ZSIG33	WO0138355 (A2)	5/31/2001	DEISHER THERESA A; BISHOP PAUL D	ZYMOGENETICS INC [US]	C07K14/575

Novel FGF homologs	US2005043234 (A1)	2/24/2005	DEISHER THERESA A [US]; CONKLIN DARRELL C [US]	DEISHER THERESA A, ; CONKLIN DARRELL C	A61K38/18C; C07K14/50
sig33-like peptides and olynucleotides	US2005048618 (A1)	3/3/2005	[US]; DEISHER THERESA A [US]; BISHOP PAUL D [US]	ZYMOGENETICS INC [US]	C07K14/575; C07K14/63
nobilized C-Kit+ cells in the roduction of embryoid body- ke cell clusters for tissue repair	US2005186182 (A1)	8/25/2005	DEISHER THERESA [US]; WANG XIAOZHEN [US]; BEGLEY C G [US] JASPERS STEPHEN R [US]; SHEPPARD PAUL O	DEISHER THERESA, ; WANG XIAOZHEN, ; BEGLEY C. G	C12N5/06B2L; C12N5/06B6P; C12N5/06B21P
RODUCTION OF EMBRYOID ODY-LIKE CELL CLUSTERS FOR Methods of using G-CSF	WO2005047491 (A2)	5/26/2005	DEISHER THERESA [US]; WANG XIAOZHEN [US]; BEGLEY C GLENN [US]	XIAOZHEN [US]; BEGLEY C GLENN [US]	A61K35/28; C12N5/06B2L; C12N5/06B6P; C12N5/06B21P
GIP peptides METHODS OF USING G-CSF MOBILIZED C-KIT+CELLS IN THE	US2005208626 (A1)	9/22/2005		ZYMOGENETICS INC AMGEN INC [US]; DEISHER THERESA [US]; WANG	C07K14/63; C07K7/06A
			SHEPPARD PAUL O [US]; JASPERS STEPHEN R [US]; DEISHER THERESA A [US]; BISHOP PAUL		
Disintegrin homologs	US2006024805 (A1)	2/2/2006	SHEPPARD PAUL O [US]; BAINDUR NAND [US]; DEISHER THERESA A [US]; BISHOP PAUL D [US]; TAFT DAVID W [US]	ZYMOGENETICS INC	C07K14/47; C12N9/64F2C24
NOVEL FGF HOMOLOGS	US2008233114 (A1)		DEISHER THERESA A [US]; CONKLIN DARRELL C [US]; RAYMOND FENELLA C [US]; BUKOWSKI THOMAS R [US]; HOLDERMAN SUSAN D [US]; SHEPPARD PAUL O [US]	ZYMOGENETICS INC	C07K14/50
/IA SHARED VIBRATION	US2009169018 (A1)	7/2/2009	DEISHER MICHAELE [US]		H04L9/32
IML polynucleotides HANDHELD DEVICE ASSOCIATION	US2008194484 (A1)	8/14/2008	SHEPPARD PAUL O [US]; DEISHER THERESA A [US]; JASPERS STEPHEN R [US]; BISHOP PAUL D [US]	ZYMOGENETICS INC [US]	C07K14/575
Methods of using motilin nomologs	US2009270333 (A1)		SHEPPARD PAUL O [US]; DEISHER THERESA A [US]; BISHOP PAUL D [US]; JASPERS STEPHEN R [US]; LABROO VIRENDER M [US]	ZYMOGENETICS INC [US]	C07K14/575
ADJUSTMENT OF TEMPORAL ACOUSTICAL CHARACTERISTICS	US2010169075 (A1)	7/1/2010	RAFFA GIUSEPPE [US]; NACHMAN LAMA [US]; GRAUMANN DAVID L [US]; DEISHER MICHAEL E [US]		G10L13/04U; G06F17/27R4
FGF HOMOLOGS COMPOSITIONS AND USES THEREOF	US2010160235 (A1)	6/24/2010	DEISHER THERESA A [US]; CONKLIN DARRELL C [GB]		A61K38/18C
iibroblast growth factor nomologs	EP2339002 (A1)		DEISHER THERESA A [US]; CONKLIN DARRELL C [ES]; RAYMOND FENELLA C [US]; BUKOWSKI THOMAS R [US]; JULIEN SUSAN D [US]; HANSEN BRIGIT [US]; SHEPPARD PAUL O [US]	ZYMOGENETICS INC [US]	A61K47/48R; A61K47/48T4; C07K14/50; C07K16/22; C12NS/06B6C

			SHEPPARD PAUL O; JASPERS STEPHEN R;		
SGIP PEPTIDES	WO0100830 (A1)	1/4/2001	DEISHER THERESA A; BISHOP PAUL D	ZYMOGENETICS INC [US]	C07K14/47; C07K14/63
HUMAN THYROID PROTEIN			DEISHER THERESA A [US]; SHEPPARD PAUL O		
ZSIG45 AND DNA ENCODING	NO20002832 (A)	7/20/2000	[US]	ZYMOGENETICS INC [US]	C07K14/475
Antibodies and methods of					
making antibodies to human			DEISHER THERESA A [US]; SHEPPARD PAUL O		
thyroid protein zsig45	US6486304 (B1)	11/26/2002	[US]	ZYMOGENETICS INC [US]	C07K14/47
		40/04/0000	DEISHER THERESA A [US]; SHEPPARD PAUL O	TVA 40 053 (5T) 05 (4) 0 (4) 0	0071144147
Human thyroid protein ZSIG45	US6500925 (B1)	12/31/2002	[US]	ZYMOGENETICS INC [US]	C07K14/47
			CHEDDARD DALIL O [LIC], DEICHER THERECA A		
MOTILIN HOMOLOGS	NO004C14 (A)	11/22/1000	SHEPPARD PAUL O [US]; DEISHER THERESA A	ZYMOGENETICS INC [US]	C07K14/E7E
INIOTILIN HOIVIOLOGS	NO994614 (A)	11/23/1999	[บว]		C07K14/575
				ZYMOGENETICS INC [US];	
				DEISHER THERESA A [US];	
			DESCRIPT THERESA A SUST HANGON DIDGIT	HANSON BIRGIT [US];	
			DEISHER THERESA A [US]; HANSON BIRGIT	MOORE EMMA E [US];	
			[US]; MOORE EMMA E [US]; ROBERTSON	ROBERTSON TAMARA L [US];	
CARDIAC DERIVED STEMASSIVE	WOO04001E (A2)	0/20/4000	TAMARA L [US]; THOMPSON DEBORAH L [US];		
CARDIAC-DERIVED STEM CELLS	WO9949015 (A2)	9/30/1999	LUM KAREN D [US]	LUM KAREN D [US]	C12N5/06B6P
A HUMAN 2-19 PROTEIN	WOOO2E020 (A4)	F/37/4000	CONKLIN DARRELL C; BLUMBERG HAL;	ZVA 4O CENETICS INIC [115]	C07K14/47
HOMOLOGUE, Z219C	WO9925828 (A1)		DEISHER THERESA A	ZYMOGENETICS INC [US]	C07K14/47
TESTIS-SPECIFIC TRANSCRIPTION	WO9909168 (A1)	2/25/1999	YEE DAVID P; DEISHER THERESA A	ZYMOGENETICS INC [US]	C07K14/47A1
USE OF FACTOR XIII FOR THE			DEIGHER THERESA A RICHOR BALLI D. CARCIA		
MANUFACTURE OF A	MO00E4333 (44)	44 /40 /4000	DEISHER THERESA A; BISHOP PAUL D; GARCIA	TVA AO CENIETICS INIC (1:2)	A CALCOD (AF
MEDICAMENT FOR THE	WO9851333 (A1)	11/19/1998	RICHARD M	ZYMOGENETICS INC [US]	A61K38/45
HOMOLOGOS DE MOTILINA.	ES2317664 (T3)	4/16/2009	SHEPPARD PAUL O [US]; DEISHER THERESA A	ZYMOGENETICS INC	C07K14/575
Motilin homologs	CN1733918 (A)		SHEPPARD PAUL O DEISHER THERES [US]	ZYMOGENETICS INC [US]	C07K14/575
TREATMENT AGENTS AND	CIVI755518 (A)	2,13,2000	SHELL AND LAGE O DEISHER HIERES [03]	ZINOGENETICS INC [03]	CONTRACTOR
METHODS FOR TREATING TYPE II					
DIABETES AND SYMPTOMS OF	WO9827986 (A1)	7/2/1998	DEISHER THERESA	ZYMOGENETICS INC [US]	A61K31/57
Treatment agents and methods	**************************************	1/2/1990	DEISTIEN THERESA	Z TWO DEINETICS TINC [US]	HOTKOT/ 31
for treating type II diabetes and	US5929058 (A)	7/27/1999	DEISHER THERESA A [US]	ZYMOGENETICS INC [US]	A61K31/58
ior a coung type ir diabetes and	033323030 (A)	1/21/1999	DEIGHER THERESA A [00]	ETWOOLINETICS INC [03]	MOTIVOT/ 20

ABSTRACTS

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Civic Activities

May 2001 to present University District Youth Center

Donor to center, and monthly chef for 60 homeless youths.

May 2002 to Jan 2007 Seattle Biotech Legacy Foundation Board Member

The Seattle Biotech Legacy Foundation works toward a healthy, sustainable future by promoting science-based understanding, solutions and actions that are grounded in recognition of the interconnected nature of our world.

Scientific Advisory Group member Mar 2006 to Jan 2007 Board Member to oversee development efforts for SBLF.

Oct 2004 to Jan 2007 Grant Committee member May 2002 to Jan 2006