

Curriculum Vitae - Susanne Meyer

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Professional Experience:

2022-Present	Specialist, Dennis O. Clegg Lab University of California, Santa Barbara
2022-Present	Co-Director, UCSB Stem Cell Core Facility University of California, Santa Barbara
2014-2022	Specialist, James Thomson Lab University of California, Santa Barbara
2012-2014	Associate Specialist, James Thomson Lab University of California, Santa Barbara
2009-2012	Staff Research Associate IV, James Thomson Lab University of California, Santa Barbara
2008-2009	Internship, Stem Cell Lab, Neuroscience Research Institute University of California, Santa Barbara
2001-2007	Senior Associate Scientist, Department of Oncology, Amgen Inc., Thousand Oaks, CA
1999-2001	Research Associate III, Department of Functional Genomics Amgen Inc., Thousand Oaks, CA
1997-1999	Research Associate III, Department of Cancer Biology Amgen Inc., Thousand Oaks, CA
1994-1997	Research Associate II, Department of Mammalian Cell Molecular Biology Amgen Inc., Thousand Oaks, CA
1989-1994	Research Associate, Department of Microbiology State University of New York, Stony Brook, New York
1978-1989	Research Assistant, WHO Collaborating Center for Rabies Surveillance and Research, Federal Research Center for Virus Diseases of Animals, Tübingen, Germany

Education:

1974-1978	Diploma Engineer of Food Technology, College of Technology Lemgo, Germany
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Specific Research Experience:

Generated primary fibroblast cultures from biopsies of very large and very small mammals including the blue whale and the Etruscan shrew.

Established a biobank of primary cell lines from a variety of species including several marine mammals. This work is ongoing in collaboration with the San Diego Zoo Wildlife Alliance.

Established novel protocols for isolating induced pluripotent stem cells from several non-human mammalian species including mouse, rat and the pig, which is considered a non-permissive species.

Established human induced pluripotent stem cell lines from patient derived lymphoblastoid cell lines.

Characterized induced pluripotent stem cells and ES cells using a variety of assays including cardiomyocyte differentiation and immunofluorescence.

Established Karyotyping procedures for wild and domestic animal species using the LEICA CytoVision imaging system.

Developed novel Cell-SELEX procedures and discovered DNA aptamer reagents for stem cells and cell surface expressed protein targets.

Conducted peptide phage display experiments with stem cell cultures.

Maintained human embryonic stem cells using various culture conditions.

Developed in vitro assays (phosphorylation, signal-transduction, migration, flow-cytometry) leading to the discovery of an anti-cancer therapeutic antibody now in phase-3 clinical trial.

Prepared a proposal for a tissue microarray pilot study.

Developed quantitative in-vivo assays for testing the inhibitory effect of therapeutic antibodies on receptor phosphorylation and signaling in mouse liver and xenograft tumor tissues (IGEN, MSD, Luminex technologies)

Applied antibody phage display technology and automated screening procedures such as robotic ELISAs for the discovery of therapeutic anti-cancer antibody reagents.

Developed in vitro cell based assays for inhibitors of angiogenesis and an *in vivo* model for angiogenesis called CAM (Chick chorioallantoic membrane) assay.

Studied growth, differentiation and signal transduction of avian bone marrow derived hematopoietic cells.

Generated a panel of monoclonal antibodies and characterized rabies virus strains.

Participated in the development of a rabies vaccine for foxes and dogs.

Publications:

J. Vanessa Conrad, Jaime A. Neira, **Susanne Meyer**, Dennis O. Clegg and Li-Fang Chu: Establishment of transgene-free porcine induced pluripotent stem cells. Manuscript under review at Current Protocols (2024)

Yury V. Bukhman, **Susanne Meyer**, Li-Fang Chu, Linelle Abueg, Jessica Antoniewicz-Bourget, Jennifer Ballaco, Michael Brecht, Erica Dinatale, Olivier Frederigo, Giulio Formenti, Arkarachai Fungtammasan, Swagarita Jaharlal Giri, Michael Hiller, Kerstin Hove, Daisuke Kihara, Daniel Mamott, Jacqueline Mountcastle, Sarah Pelan, Keon Rabbani, Ying Sims, Alan Tracey, Jonathan M.D. Wood, Erich D. Jarvis, James A. Thomson, Mak J.P. Chaisson and Ron Stewart: Chromosome-level genome assembly of the Etruscan Shrew, *Suncus etruscus*. Nature, Scientific Data (2024) 11:176 <https://doi.org/10.1038/s41597-024-03011-x>

Yury V. Bukhman, Phillip A. Morin, **Susanne Meyer**, Li-Fang Chu, Jeff K. Jacobsen, Jessica Antosiewicz-Bourget, Daniel Mamott, Maylie Gonzales, Cara Argus, Jennifer Bolin, Mark E. Berres, Olivier Fedrigo, John Steill, Scott A. Swanson, Peng Jiang, Arang Rhie, Giulio Formenti, Adam M. Phillippy, Robert S. Harris, Jo Wood, Kerstin Howe, Bogdan M. Kirilenko, Chetan Munegowda, Michael Hiller, Aashish Jain, Daisuke Kihara, J. Spencer Johnston, Alexander Ionkov, Kalpana Raja, Huishi Toh, Aimee Lang, Magnus Wolf, Erich D. Jarvis, James A. Thomson, Mark J.P. Chaisson, Ron Stewart: A high-quality blue whale genome, segmental duplications and historical demography. Mol. Biol. Evol. 2024 Mar, 41(3). Published online 2024 Feb 20. Doi: 10.1093/molbev/msae036

J. Vanessa Conrad, **Susanne Meyer**, Pranav S. Ramesh, Jaime A. Neira, Margaret Rusteika, Daniel Mamott, Bret Duffin, Monica Bautista, Jue Zhang, Emily Hiles, Eve M. Higgins, John Steill, Jack Freeman, Zijian Ni, Shiyong Lu, Mark Ungrin, Derrick Rancourt, Dennis O. Clegg, Ron Stewart, James A. Thomson and Li-Fang Chu: Efficient derivation of transgene-free porcine induced pluripotent stem cells enables in vitro modeling of species-specific developmental timing. Stem Cell Reports 18(12): 2328-2343 (2023)

Zhonggang Hou, **Susanne Meyer**, Nicholas E. Probson, Jeff Nie, Peng Jiang, Ron Stewart and James A. Thomson: Characterization and target identification of a DNA aptamer that labels pluripotent stem cells. Cell Res. 25(3) 390-393, (2015)

Peng Jiang, **Susanne Meyer**, Zhonggang Hou, Nicholas E. Probson, H. Tom Soh, James A. Thomson and Ron Stewart: MPBind: a Meta-motif-based statistical framework and pipeline to predict binding potential of SELEX-derived aptamers. Bioinformatics 30(18) 2665-2667 (2014)

Susanne Meyer, John P. Maufort, Jeff Nie, Ron Stewart, Brian McIntosh, Lisa R. Conti, Kareem M. Ahmad, H. Tom Soh, and James A. Thomson: Development of an efficient targeted Cell-SELEX procedure for DNA aptamer reagents. PLoS ONE 8(8) e71798 (2013)

Teresa L. Burgess, Jan Sun, **Susanne Meyer**, Trace S. Tsuruda, Jilin Sun, Gary Elliott, Qing Chen, Mitsuru Haniu, Will F. Barron, Todd Juan, Ke Zhang, Angela Coxon, and Richard L. Kendall: Biochemical Characterization of AMG 102: A neutralizing fully human monoclonal antibody to human and nonhuman primate hepatocyte growth factor. *Molecular Cancer Therapeutics* 9(2) 400-409, (2010)

Angela Coxon, Karen Rex, **Susanne Meyer**, Jianling Sun, Jilin Sun, Qing Chen, Robert Radinsky, Richard Kendall and Teresa Burgess: Soluble c-Met receptors inhibit growth of hepatocyte growth factor/scatter factor: c-Met-dependent tumors in animal models. *Molecular Cancer Therapeutics*, 8(5). 1119-1125 (2009)

Teresa Burgess, Angela Coxon, **Susanne Meyer**, Jan Sun, Karen Rex, Trace Tsuruda, Quing Chen, Shu-Yin Ho, Luke Li, Stephen Kaufmann, Kevin McDorman, Russel C. Cattley, Jilin Sun, Gary Elliott, Ke Zhang, Xiao Feng, Xiao-Chi Jia, Larry Green, Robert Radinsky and Richard Kendall: Fully human monoclonal antibodies to Hepatocyte Growth Factor with therapeutic potential against HGF/c-Met dependent tumors. *Cancer Res* 2006; 66(3): 1721-9.

Jonathan Oliner, Hosung Min, Juan Leal, Dongyin Yu, Shashirekha Rao, Edward You, Xiu Tang, Haejin Kim, **Susanne Meyer**, Seog Joon Han, Nessa Hawkins, Robert Rosenfeld, Elyse Davy, Kevin Graham, Frederick Jacobsen, Shirley Stevenson, Joanne Ho, Qing Chen, Thomas Hartmann, Mark Michaels, Michael Kelley, Luke Li, Karen Sitney, Frank Martin, Ji-Rong Sun, Nancy Zhang, John Lu, Juan Estrada, Rakesh Kumar, Angela Coxon, Stephen Kaufmann, James Pretorius, Sheila Scully, Russ Cattley, Marc Payton, Steve Coats, Linh Nguyen, Binodh Desilva, Anthony Ndifor, Isaac Hayward, Robert Radinsky, Tom Boone and Richard Kendall: Suppression of angiogenesis and tumor growth by selective inhibition of angiopoietin-2: *Cancer Cell*. Nov; 6(5):507-16 (2004).

Rachel Yabkovitz, **Susanne Meyer**, Tabitha Black, Gary Elliott, Lee Anne Merewether, and Harvey K. Yamane: Inflammatory cytokines and vascular endothelial growth factor stimulate the release of soluble tie receptor from human endothelial cells via metalloprotease activation: *Blood* 93 (6), 1969-1979 (1999).

Rachel Yabkowitz, **Susanne Meyer**, Donna Yanagihara, David Brankow, Tabitha Staley, Gary Elliott, Sylvia Hu, and Barry Ratzkin: Regulation of the tie receptor expression on human endothelial cells by Protein Kinase C-mediated release of soluble tie. *Blood* 90 (2), 706-715 (1997).

Peter Steinlein, Oliver Wessely, **Susanne Meyer**, Eva-Maria Deiner, Michael J. Hayman and Hartmut Beug: Primary, Self-renewing erythroid progenitors develop through activation of both tyrosine kinase and steroid hormone receptors: *Current Biology* 5, 191-204 (1995).

Hartmut Beug, Richard Dahl, Peter Steinlein, **Susanne Meyer**, Eva-Maria Deiner, and Michael J. Hayman: In vitro growth of factor-dependent multipotential hematopoietic cells is induced by the nuclear oncoprotein v-ski: *Oncogene* 11, 59-72, (1995).

Hartmut Beug, Christian Schroeder, Oliver Wessely, Evi Deiner, **Susanne Meyer**, Irene D. Ischenko, and Michael J. Hayman: Transformation of erythroid progenitors by viral and cellular tyrosine kinases. *Cell Growth and Differentiation* 6, 999-1008 (1995).

Kirstin Labudda, **Susanne Meyer**, and Michael J. Hayman: Identification of the binding site for the Shc protein to the avian v-erbB protein. *Virology* 206, 269-275 (1995).

Susanne Meyer, Kirstin Labudda, Jane McGlade, and Michael J. Hayman: Analysis of the role of SHC and Grb2 proteins in signal transduction by the v-ErbB protein. *Molecular and Cell Biology* 14, 3253-3262 (1994).

Michael J. Hayman, **Susanne Meyer**, Frank Martin, Peter Steinlein, and Hartmut Beug: Self-renewal and differentiation of normal avian erythroid progenitor cells: Regulatory roles of the c-erbB/TGF α receptor and c-kit/SCF receptors. *Cell* 74, 157-169 (1993).

Jennifer Larsen, **Susanne Meyer**, Peter Steinlein, Hartmut Beug, and Michael J. Hayman: Transformation of chicken bone marrow cells by the v-ski oncogene: *Oncogene* 8, 3221-3228 (1993).

Eunhee Bae Lee, **Susanne Meyer**, and Michael J. Hayman: Evidence that a cytoplasmically located version of a v-erbB-encoded protein can transform both fibroblasts and erythroblasts. *Virology* 190, 557-560 (1992)

Kathleen Keegan, **Susanne Meyer** and Michael J. Hayman: Structural and biosynthetic characterization of the fibroblast growth factor receptor 3 (FGFR-3) protein. *Oncogene* 6, 2229-2236 (1991).

Frank Weiland, James H. Cox, **Susanne Meyer**, Erwin Dahme, and Matthias J. Reddehase: Rabies Virus Neuritic Paralysis: Immunopathogenesis of nonfatal paralytic rabies. *Journal of Virology*, 66 (8), 5096-5099 (1992).

Jarlath U. Umoh, James H. Cox, Lothar G. Schneider, and **Susanne Meyer**: Identification of fox rabies by a monoclonal antibody directed against nucleocapsid of a street rabies virus. *Zentralblatt für Veterinärmedizin (B)* 37(2), 153-157 (1990).

Lothar G Schneider and **Susanne Meyer**: Antigenic determinants of rabies virus as demonstrated by monoclonal antibody. The replication of negative strand viruses. EDS. David H.L. Bishop and Richard W. Compans. Elsevier North Holland, 947-953 (1981)

Poster Presentation

Susanne Meyer, H. Toni Jun, Qing Chen, Joanne Ho, Trace Tsuruda, Jilin Sun, Gary Elliott, Ke Zhang and Teresa L. Burgess: Mapping the functional interaction site between HGF and c-Met with chimeras of human and mouse HGF: Poster at AACR meeting, Nov. 2005

UCSB Invention Disclosure

Susanne Meyer, Tom Soh and James Thomson: Procedure to generate high affinity DNA aptamers, which selectively bind to pluripotent stem cells, November 28, 2011

