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Degrees, Certificates, Awards, Licenses

1981	B.A.	Barnard College, Columbia University (Biochemistry) Cum Laude
1993	M.D.	Stanford University School of Medicine
1993	Ph.D.	Stanford University Department of Chemistry (Biophysical Chemistry)
1997		Board Certification, Clinical Pathology
1996-1999		Howard Hughes Medical Institute Physician Postdoctoral Fellow
2003 – 2006		Medical Licensure: Hawaii
2004 – Active		Medical Licensure: Colorado
2003 – Active		DEA Controlled Substance Registration

Clinical Practice

2020 – Current	Medical Cannabis Practice <u>Private Practice Physician</u> Telemedicine-based medical cannabis physician services
2011 – 2022	Medical Cannabis Practice <u>Staff Physician</u> and <u>Medical Director</u> Vibrant Health Clinic LLC, Colorado Springs, Colorado Medical cannabis-related physician services
2009 – 2020	Medical Cannabis Practice <u>Private Practice Physician</u> , Gedde Whole Health LLC 2013-2020, Buena Vista, Colorado 2009-2013, Multiple Sites in Colorado
2003 – 2008	General Practice , Salida, Colorado <u>Private Practice Physician</u> , Gedde Whole Health LLC 2004-2008, Salida, Colorado 2003-2004, Maui, Hawaii Alternative & Holistic Physician Services

- 1993 – 1997 **University of Pennsylvania Medical Center**, Philadelphia, PA
Resident and Clinical Instructor,
 Division of Laboratory Medicine,
 Department of Pathology and Laboratory Medicine
- 1994 – 1995 Chief Resident, Division of Laboratory Medicine

Pharmaceutical Industry Experience

2002 to 2003 **Pharmaceutical Development Consultants, LLC**
 Principal Consultant

- Pharmaceutical development consulting services specializing in pre-clinical and clinical development of anti-infectives.

1999 to 2002 **IntraBiotics Pharmaceuticals, Inc.**, Mountain View, CA
 Department of Microbiology

9/99 to 9/00	Senior Scientist
10/00 to 6/01	Assistant Director
6/01 to 4/02	Director

- Implemented microbiology portions of anti-infective programs in clinical development.

Medical and Basic Science

1995 to 1997 **University of Pennsylvania School of Medicine**, Philadelphia, PA
 Postdoctoral Fellow, Department of Microbiology

1997 to 1999 **University of California at Berkeley**, Berkeley, CA
 Postdoctoral Fellow, Department of Molecular and Cell Biology
 Advisor: Daniel A. Portnoy

1996 to 1999 Howard Hughes Medical Institute Physician Postdoctoral Fellow

1985 to 1993 **Stanford University School of Medicine**, Stanford, CA
 Medical Student

1986 to 1993 **Stanford University**, Stanford, CA
 Graduate Student, Department of Chemistry
 Thesis Advisor: Wray H. Huestis
 Thesis: "Cell pH-Mediated Shape Change in the Human Erythrocyte"

1985 to 1986 **Stanford University School of Medicine**, Stanford, CA
 Medical Student Research Assistant, Department of Neurology

- 1984 to 1985 **The Rockefeller University**, New York, NY
Research Assistant, Laboratory of Metabolism/Pharmacology
- 1983 to 1984 **Memorial Sloan-Kettering Cancer Center**, New York, NY
Research Assistant, Laboratory of Developmental Genetics

Honors and Awards

- 1985 Kevin Walton Summer Fellowship
- 1990 – 1992 Jameson Research Foundation Fellowship
- 1995 – 1996 Infectious Diseases and Virology Training Grant (NIH)
- 1996 – 1999 Howard Hughes Medical Institute Physician Postdoctoral Research Fellowship

Publications

- Research Article Maulucci-Gedde M, Choi DW. 1987. Cortical neurons exposed to glutamate rapidly leak preloaded 51-chromium. *Experimental Neurology* 96:420-429.
- Research Article Choi DW, Maulucci-Gedde M, Kriegstein AR. 1987. Glutamate toxicity in cortical cell culture. *Journal of Neuroscience* 7:357-368.
- Abstract American Society for Cell Biology, Houston, TX, Dec 1989
Gedde MM, Huestis WH. "Roles of internal pH, cell volume, and membrane potential in human erythrocyte pH-induced shape change." *Journal of Cell Biology* 109:175a.
- Abstract Biophysical Society, San Francisco, CA, Feb 1991
Gedde MM, Huestis WH. Human erythrocyte shape change induced by changes in buffer pH is most dependent on changes in cytoplasmic pH." *Biophysical Journal* 59:639a.
- Abstract American Society for Cell Biology, New Orleans, LA, Dec 1993
Gedde MM, Yang E, Huestis WH. Hydrophobic protein-lipid associations in human erythrocyte cell pH-mediated shape change." *Molecular Biology of the Cell* 4:85a.
- Thesis Gedde MM. 1993. Cell pH-mediated shape change in the human erythrocyte. Department of Chemistry, Stanford University.
- Review Article Gedde MM, Kricka LJ. 1994. Serum ferritin measurement: a case study approach to quality improvement. *Endocrinology and Metabolism In-Service Training and Continuing Education* 12(7): 179-183.
- Review Article Gedde MM, Kricka LJ. 1994. Rhabdomyolysis. *Endocrinology and Metabolism In-Service Training and Continuing Education* 12(9): 241-246.
- Research Article Gedde MM, Yang E, Huestis WH. 1995. Response of human erythrocyte shape to altered cell pH. *Blood* 86:1595-1599.

- Research Article Mazzaccaro RJ, Gedde MM, Jensen ER, van Santen HM, Ploegh HL, Rock KL, Bloom BR. 1996. Major histocompatibility class 1 presentation of soluble antigen facilitated by *Mycobacterium tuberculosis* infection. Proceedings of the National Academy of Science, USA 93:11786-11791.
- Research Article Gedde MM, Huestis WH. 1997. Membrane potential and human erythrocyte shape. Biophysical Journal 72:1220-1233.
- Research Article Gedde MM, Davis DK, Huestis WH. 1997. Cytoplasmic pH and human erythrocyte shape. Biophysical Journal 72:1234-1246.
- Abstract American Society for Cell Biology, Washington, D.C., Dec 1997
Gedde MM, Higgins DE, Tilney LG, Portnoy DA. "Role of the pore-forming protein, listeriolysin O, in the cell-to-cell spread of *Listeria monocytogenes*." Molecular Biology of the Cell 8:237a.
- Abstract American Society for Cell Biology, San Francisco, CA, Dec 1998
Chen JY, Chu FC, Gedde MM, Huestis WH. "Selective electrostatic interactions of chlorpromazine with plasma membrane components." Molecular Biology of the Cell 9:80a.
- Abstract Biophysical Society, Baltimore, MD, Feb 1999
Gedde MM, Portnoy DA. "Structural basis of the pH-dependence of the pore-forming protein listeriolysin O." Biophysical Journal 76:22a.
- Research Article Gedde MM, Yang E, Huestis WH. 1999. Resolution of the paradox of red cell changes in low and high pH. Biochimica et Biophysica Acta 1417:246-253.
- Research Article Gedde MM, Higgins DE, Tilney LG, Portnoy DA. 2000. Role of listeriolysin O in cell-to-cell spread of *Listeria monocytogenes*. Infection and Immunity 68:999-1003.
- Abstract 1st Int ASM Conference on Enterococci, Banff, Alberta, Canada, Feb 2000
So W, White DJ, Gedde MM. "Comparison of selective media for isolation of vancomycin-resistant enterococci." February 27 to March 2, 2000.
- Abstract 1st Int ASM Conference on Enterococci, Banff, Alberta, Canada, Feb 2000
Baden L, Critchley I, Sahm D, So W, Gedde MM, Porter S, Moellering RC Jr, Eliopoulos G. "Pulsed-field gel electrophoresis of VRE DNA isolated during a phase II clinical study of the novel glycolipodepsipeptide ramoplanin." February 27 to March 2, 2000.
- Abstract American Society for Microbiology, Los Angeles, CA, May 2000
Gedde MM, Glomski IJ, Portnoy DA. "The role of the acidic pH optimum of listeriolysin O in *Listeria monocytogenes* pathogenesis." 100th General Meeting. Abstract D-59, p 239.
- Abstract Symposium on Pore-Forming Toxins, Trento, Italy, Sep 2000
Glomski IJ, Gedde MM, Portnoy DA. "Increasing the hemolytic activity of listeriolysin O at neutral pH decreases the virulence of *Listeria monocytogenes*." September 14-17, 2000.

- Abstract 1st Intl Symp on Resistant Gram-Positive Infections, San Antonio, TX, Dec 2000
White DJ, Visweswaran V, So W, Hurst MA, Gedde MM. "Resistance profile of ramoplanin, a novel glycolipodepsipeptide with selective gram-positive activity." December 3-5, 2000.
- Abstract North American Cystic Fibrosis Conference, Orlando, FL, Oct 2001
Loury DL, Gedde MM, Woods DE. "Aerosolized protegrin analog iseganan (IB-367) reduces microbial density in a rat model of lung infection with *Pseudomonas aeruginosa*." October 25-28, 2001.
- Research Article Glomski IJ,* Gedde MM,* Tsang AW, Swanson JA, Portnoy DA. 2002. The *Listeria monocytogenes* hemolysin has an acidic pH optimum to compartmentalize activity and prevent damage to infected host cells. *Journal of Cell Biology* 156:1-12.
*These authors contributed equally.
- Research Article Baden LR, Critchley IA, Sahm DF, So W, Gedde M, Porter S, Moellering RC Jr, Eliopoulos G. 2002. Molecular characterization of vancomycin-resistant enterococci repopulating the gastrointestinal tract following treatment with a novel glycolipodepsipeptide, ramoplanin. *Journal of Clinical Microbiology* 40:1160-3.
- Research Article Chen JY, Brunauer LS, Chu FC, Helsel CM, Gedde MM, Huestis WH. 2003. Selective amphipathic nature of chlorpromazine binding to plasma membrane bilayers. *Biochimica Biophysica Acta (Biomembranes)* 1616(1):95-105.
- Abstract American Epilepsy Society Annual Meeting, Washington, DC, Dec 2013
Gedde MM, Maa E. Whole Cannabis Extract of High Concentration Cannabidiol May Calm Seizures in Highly Refractory Pediatric Epilepsies. December 6-10, 2013.
- Research Article Rhyne DN, Anderson SL, Gedde MM, Borgelt LM. Effects of Medical Marijuana on Migraine Headache Frequency in an Adult Population. *Pharmacotherapy*. 2016 May;36(5):505-10.