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Education:

- Jan. 2001-
Aug. 2003 **Postdoctoral Research Fellow**
University of Minnesota; Minneapolis, MN
Mentor: Dr. Margaret A. Titus, Department of Genetics, Cell Biology,
and Development
- Aug. 1995-
Jan. 2001 **Ph.D., Cell and Structural Biology**
University of Illinois at Urbana-Champaign
Advisor: Dr. David M. Kranz, Department of Biochemistry
- Aug. 1991-
May 1995 **B.A., Biology**, summa cum laude
College of Saint Benedict; Saint Joseph, MN

Teaching Experience and Certification:

- Jun. 2006-
present Assistant professor, Biology Department at Concordia University—Saint Paul
- Aug. 2004-
present Term faculty, Concordia University—Saint Paul; have taught courses listed
below along with BIO120 Biology I: The Unity of Life, BIO240 Molecular
Biology, BIO450 Special Topics in Biology (stem cells), BIO256 Research in
Biology, BIO455 Research Proposal, BIO456 Research in Biology
- Aug. 2003-
May 2004 Adjunct instructor, Concordia University—Saint Paul; BIO430 Molecular
Immunology, BIO330 Molecular Cell Biology, BIO310 Genetics,
BIO100 Biology Today.
- Jan. 2003-
May 2003 Adjunct instructor, Concordia University—Saint Paul; BIO330 Molecular
Cell Biology and BIO100 Biology Today (general education course).
- Summer 2002 Mentor for Undergraduate Summer Research Student, Sorin Fedeles;
Title: Creating the myosin VI bait plasmid for a yeast two-hybrid screen;
University of Minnesota.

- Jan. 2000 Teaching Assistant Fellow: Taught incoming, first semester TAs at the University of Illinois All-Campus Teaching Assistant Orientation. Topics included basic classroom survival skills, fostering an optimal learning environment, building on diversity in the classroom, and teaching science laboratories.
- 3 semesters
(1998-2000) Teaching Assistant, BIOL 122 Cellular and Molecular Biology; University of Illinois at Urbana-Champaign. Ranked excellent (top 10% campus-wide) by students for the Fall 2000 semester. Course lecturer: Dr. Deanna Raineri; Lab coordinator: Melissa Michael
- Jan. 1999-
Dec. 1999 Supervision of Undergraduate Research Student, Stephanie Goss; University of Illinois at Urbana-Champaign.
- May 1998-
Dec. 1998 Supervision of Undergraduate Senior Honor Thesis Student, Jamie Rochleau; Title: Characterization of methods for mutagenesis and selection of higher affinity T-cell receptors; University of Illinois at Urbana-Champaign.

Professional Development:

- Aug. 2007 Concordia University all Faculty Retreat; Saint Paul, MN; Presented at the Faculty Research Roundtable sessions.
- Nov. 2006 Professional Conference: Motivating Students for Better Retention, Learning, and Achievement
Sponsored by The Collaboration for the Advancement of College Teaching and Learning. A 2-day conference held at the Sheraton Hotel in Bloomington, MN.
- Aug. 2006 Concordia University all Faculty Retreat; Saint Paul, MN; Presented at the Faculty Research Roundtable sessions.
- Apr. 2006 Professional Conference: Faculty Mentor Training Workshop
Sponsored by Concordia University—St. Paul. A ½-day conference held at Concordia University, led by President MaryAnn Baenninger from the College of St. Benedict.
- Feb. 2006 Professional Conference: Building a Learning-Centered Institution
Sponsored by The Collaboration for the Advancement of College Teaching and Learning. A 2-day conference held at the Sheraton Hotel in Bloomington, MN.
- Aug. 2005 Concordia University all Faculty Retreat; Saint Paul, MN; Presented at the Faculty Research Roundtable sessions.
- Aug. 2004 Concordia University all Faculty Retreat; Saint Paul, MN.

- Aug. 2003 Concordia University all Faculty Retreat; Minnesota Landscape Arboretum in Chanhassen, MN.
- Aug. 2002-
Dec. 2002 GRAD 8101 course: Teaching in Higher Education, part of the Preparing Future Faculty program; Bill Rozaitis, Ph.D. and Tim Gustafson, Ph.D.
Course description: This course is designed to help participants become better and more reflective college teachers. The class models a variety of active learning strategies and facilitates participant discussions on educational theory and practice. By combining theory and practice, participants explore and develop teaching skills that promote learning within a diverse student body in a variety of settings.
- Feb. 2000 Faculty Retreat: “Pedagogy 2000: Teaching, Learning, and Technology,” University of Illinois at Urbana-Champaign.
- Apr. 2000 Graduate Teaching Certificate (GTC), awarded by the Office of Instructional Resources; University of Illinois at Urbana-Champaign.
Requirements: Participation in a two-day instructional orientation that includes microteaching with video-playback, two semesters or more of classroom teaching, self-reflection on student informal early semester feedback and end of the semester evaluations for two or more semesters, at least six hours of in-service college teaching workshops, and classroom videotaping with feedback.
- Oct. 1999 Symposium: “Careers in Teaching Chemistry at Primarily Undergraduate Institutions,” University of Illinois at Urbana-Champaign.
- Aug. 1999-
Dec. 1999 EOL 490 course: Teaching in the College and University Setting; Marne Helgesen, Ph.D. and Sharon Scott, Ed.D.
Course description: This for-credit, semester-long class examines the theory and practice of good teaching as applied to college-level classes; students engage in multiple hands-on teaching strategies with feedback.
- Graduate Teaching Certificate (GTC) Workshops:
- Mar. 1999 Creating a Syllabus
Mar. 1999 Learning Theories and Motivating Students
Feb. 1999 The Teaching Portfolio: An Introduction
Sept. 1998 Testing
Sept. 1998 Student Feedback
- Aug. 1998 All-Campus Teaching Assistants’ Orientation, University of Illinois at Urbana-Champaign.
Format: A 2-1/2 day instructionally based pre-semester orientation that included participation in a microteaching session combined with consultative feedback.

Honors, Awards, and Professional Memberships:

- Awarded Faculty Development Grants for undergraduate research from Concordia University—St. Paul Faculty Development Committee; Spring 2005, Fall 2006, and Fall 2007
- NIH Postdoctoral Fellow, funding awarded for 3 years; University of Minnesota, Minneapolis, MN, 2001-2003. Grant Number: 1 F32 GM63472-01
- Member of the American Society for Cell Biology (ASCB), 2002 to present.
- Included in “An Incomplete List of Teachers Ranked as Excellent by Their Students” with special recognition for being in the top 10% of ranked instructors; University of Illinois at Urbana-Champaign, 2001.
- Member of National Association of Biology Teachers (NABT), 1998-present.
- NIH Cell and Molecular Biology Training Grant Fellow (predoctoral), University of Illinois at Urbana-Champaign, 1995-1998, 2000. Grant Number: T32 GM07283
- Conference Travel Grant Awards from the NIH Cell and Molecular Biology Training Grant Program, University of Illinois Graduate College, and the Department of Cell and Structural Biology at the University of Illinois, 2000.
- Award for “Best Graduate Student Talk” at the NIH Cell and Molecular Biology/Molecular Biophysics Training Grant Research Symposium, University of Illinois at Urbana-Champaign, 1998.
- All College Honors with Distinction in Biology for undergraduate senior thesis research; College of Saint Benedict, Saint Joseph, MN, 1995.
- Dean’s Honor List, 7 semesters; College of Saint Benedict, 1991-1995.

Activities and Service:

Oct. 2007	Appointed committee chair for Assistant Professor of Chemistry position search
Summer 2007	Co-director of Summer Research Institute (SRI) pilot summer program, Concordia University—Saint Paul; involved in all stages of planning, seeking external funding, running the program, assessment. Funding from Medtronic, Boston Scientific, and Cargill
Fall 2006-present	Invited to serve on Higher Learning Commission Accreditation Team, Concordia University—Saint Paul
Sept. 2005-present	Appointed as the Assessment Coordinator for the College of Arts and Sciences, Concordia University—Saint Paul; includes serving on the Assessment Council
Aug. 2004-Aug. 2006	Biology Student Lab Assistant Coordinator, Concordia University—Saint Paul
Aug. 2003-May 2004	Faculty Circle: Women in Higher Education, Concordia University—Saint Paul

- Aug. 1997-
Aug. 1999 NIH Training Grant Executive Committee Student Representative;
University of Illinois at Urbana-Champaign.
- Oct. 1997 Tenth Annual NIH Cell and Molecular Biology/Molecular Biophysics Training
Grant Research Symposium co-chair, University of Illinois at Urbana-
Champaign.
- Aug. 1994-
May 1995 College of Saint Benedict/Saint John's University Biology Department Tutor
and Biology Club Officer.

Research Experience:

- Aug. 2004-
present Research Institute of the Biosciences at Concordia University—Saint Paul;
mentoring independent student research, and seeking internal and external
funding in collaboration with Dr. Benjamin Leung (director of the institute)
and Dr. Amy Gort, Assistant Professor of Biology.
Research: Elucidating the role of Human Papillomavirus in Cervical and
Breast Cancer.
Techniques: Tissue culture, transfection, Western blotting, RNAi, PCR.
- Jan. 2001-
Aug. 2003 Postdoctoral Research Fellow; Department of Genetics, Cell Biology,
and Development, University of Minnesota, Minneapolis, MN.
Research: A role for myosin VI in asymmetric organelle segregation:
characterizing an unconventional myosin in *Caenorhabditis elegans*.
Techniques: Microscopy, immunofluorescence, antibody production,
protein purification, yeast two-hybrid, basic molecular biology techniques.
- Aug. 1995-
Oct. 2000 Graduate Research Assistant; Departments of Cell and Structural Biology/
Biochemistry; University of Illinois at Urbana-Champaign.
Thesis research: Directed evolution of T cell receptor antagonists.
Techniques: Yeast cell surface display, random and site-directed mutagenesis,
flow cytometry and cell sorting, production and purification of proteins in
yeast, PCR, cloning, basic molecular biology techniques.
- Aug. 1994-
May 1995 Undergraduate Senior Honor Thesis;
Title: Gene targeting to *Alu* in cultured human somatic cells; College of Saint
Benedict, Saint Joseph, MN.
Advisors: Dr. Cheryl Knox and Dr. John Schneider
- June 1993-
Aug. 1993 Howard Hughes Undergraduate Summer Research Program; University of
Minnesota, Minneapolis, MN.
Advisor: Dr. Colin Campbell

Publications:

Kieke, M.C., Moroz, K., Gort, A.S. (2007) The transformation to a learner-centered community as a result of university-wide assessment. *On the Horizon* 15:107-117.

Cho, S., Swaminathan, C.P., Yang, J., Kerzic, M., Guan, R., **Kieke, M.C.**, Kranz, D.M., Mariuzza, R.A., and E.J. Sundberg (2005) Structural basis of affinity maturation and intramolecular cooperativity in a protein-protein interaction. *Structure* 13:1775-1787.

Yang, J., Swaminathan, C.P., Huang, Y., Guan, R., Cho, S., **Kieke, M.C.**, Kranz, D.M., Mariuzza, R.A., and E.J. Sundberg (2003) Dissecting cooperative and additive binding energetics in the affinity maturation pathway of a protein-protein interface. *J. Biol. Chem.* 278:50412-50421.

Kieke, M.C. and Titus, M.A. (2002) The myosin superfamily—an overview. In *Molecular Motors* (ed. M. Schliwa). Wiley-VCH; Weinheim, Germany.

Kieke, M.C., Sundberg, E., Shusta, E.V., Mariuzza, R.A., Wittrup, K.D., and D.M. Kranz (2001) High affinity T cell receptors from yeast display libraries block T cell activation by superantigens. *J. Mol. Biol.* 307:1305-1315.

Shusta, E.V., Holler, P., **Kieke, M.C.**, Kranz, D.M., and K.D. Wittrup (2000) A single-chain T-cell receptor scaffold optimized by temperature selections. *Nat. Biotech.* 18:754-759.

Shusta, E.V., **Kieke, M.C.**, Parke, E., Kranz, D.M., and K.D. Wittrup (1999) Yeast polypeptide fusion surface display levels predict thermal stability and soluble secretion efficiency. *J. Mol. Biol.* 292:949-956.

Kieke, M.C., Boder, E.T., Shusta, E.V., Teyton, L., Wittrup, K.D., and D.M. Kranz (1999) Selection of functional T cell receptor mutants from a yeast surface-display library. *Proc. Natl. Acad. Sci. USA* 96:5651-5656.

Cho, B.K., **Kieke, M.C.**, Boder, E.T., Wittrup, K.D., and D.M. Kranz (1998) A yeast surface display system for the discovery of ligands that trigger cell activation. *J. Immunol. Methods* 220:179-188.

Kieke, M.C., Cho, B.K., Boder, E.T., Kranz, D.M., and K.D. Wittrup (1997) Isolation of anti-T cell receptor scFv mutants by yeast surface display. *Protein Eng.* 10:1303-1310.

United States Patents:

“Yeast cell surface display of proteins and uses thereof” (Filing Date: January 1998; continuation-in-part application).

Patent number: 6,300,065 (October 9, 2001)

Inventors: Michele C. Kieke, K. Dane Wittrup, Eric T. Boder, David M. Kranz,
Eric V. Shusta

Description: A method for the directed evolution and cell surface display of proteins on the yeast *Saccharomyces cerevisiae* that are not easily expressed in other systems.

Abstracts and Posters:

- Apr. 2007 Verifying the Presence of HPV E6 DNA and Protein in Breast Cancer Cell Lines. Kyle Warren, Amy Gort, Benjamin Leung, and Michele C. Kieke
Biology Department, Concordia University; Saint Paul, MN.
Concordia University Research and Scholarship Symposium Saint Paul, MN
- Feb. 2007 Using PCR to Detect the Presence of Human Papilloma Virus in Breast Cancer Cell Lines. Matt Salewski, Kelsey Walt, Akoua Attiogbe, Amy Gort, Benjamin Leung, and Michele C. Kieke
Biology Department, Concordia University; Saint Paul, MN.
Scholars at the Capitol (MN Private Colleges); presented at the Minnesota State Capitol Saint Paul, MN
- Apr. 2006 Using RNAi to Target the Human Papilloma Virus E6 gene in HPV⁺ Breast Cancer Cell Lines. Rachel Mueller, Mao Xiong, Rachel Mueller, Matt Salewski, Akoua Attiogbe, Amy Gort, Benjamin Leung, and Michele C. Kieke
Biology Department, Concordia University; Saint Paul, MN.
Northwestern College Biology Symposium (presented 2 posters) Saint Paul, MN
- Apr. 2006 Using RNAi to Target the Human Papilloma Virus E6 gene in HPV⁺ Breast Cancer Cell Lines. Rachel Mueller, Mao Xiong, Amy Gort, Benjamin Leung, and Michele C. Kieke
Biology Department, Concordia University; Saint Paul, MN.
Concordia University Research and Scholarship Symposium Saint Paul, MN
- Apr. 2006 Using PCR to Detect the Presence of Human Papilloma Virus in Breast Cancer Cell Lines. Matt Salewski, Kelsey Walt, Akoua Attiogbe, Amy Gort, Benjamin Leung, and Michele C. Kieke
Biology Department, Concordia University; Saint Paul, MN.
Concordia University Research and Scholarship Symposium Saint Paul, MN
- Apr. 2005 Using RNAi to target the HPV E6 gene in cervical cancer. Tia Lindberg, Dane Maxfield, Leslie Smithson, Amy Gort, Benjamin Leung, and Michele C. Kieke
Department of Natural Sciences, Concordia University; Saint Paul, MN.
Concordia University Research and Scholarship Symposium Saint Paul, MN

- Apr. 2004 The Effects of Temperature on the Fertility of Spermatogenesis Mutants in the Nematode *C. elegans*. Sarah Bohn and Michele C. Kieke. Department of Natural Sciences, Concordia University; Saint Paul, MN. Concordia University Research and Scholarship Symposium Saint Paul, MN
- Apr. 2004 Marking and Balancing the *eb10* allele of *spe-15* in *C. elegans*. Justin Kortuem, Courtney Evens, and Michele C. Kieke. Department of Natural Sciences, Concordia University; Saint Paul, MN. Concordia University Research and Scholarship Symposium Saint Paul, MN
- Sept. 2001 Myosin VI plays a role in restricting organelle movement. Michael A. Mandell, Michele C. Kieke, and Margaret A. Titus. Department of Genetics, Cell Biology, and Development, University of Minnesota, Minneapolis, MN. Annual Meeting of the Society of General Physiologists Woods Hole, MA
- Apr. 2000 Engineering higher affinity T-cell antagonists using directed evolution. Michele C. Kieke¹, Laurie A. Rund¹, K. Dane Wittrup², and David M. Kranz¹. Department of Biochemistry¹, University of Illinois at Urbana-Champaign. Department of Chemical Eng. and Bioengineering, Mass. Institute of Tech.². Cambridge Healthtech Institute's Protein Discovery Technologies Boston, MA
- Dec. 1998 Engineering a T-cell receptor using yeast cell surface display. Michele C. Kieke¹, Eric T. Boder², Eric V. Shusta², Luc Teyton³, K. Dane Wittrup², and David M. Kranz¹. Departments of Biochemistry¹ and Chemical Engineering², University of Illinois at Urbana-Champaign. Department of Immunology³, Scripps Research Institute, La Jolla, CA. IBC Ninth Annual Antibody Engineering Conference Coronado, CA
- Jan. 1998 Yeast display of TCR and anti-TCR single-chain proteins. Michele C. Kieke¹, Bryan K. Cho², Eric T. Boder³, K. Dane Wittrup³, and David M. Kranz². Departments of ¹Cell and Structural Biology, ²Biochemistry, ³Chemical Engineering, University of Illinois at Urbana-Champaign. Keystone Symposium Keystone, CO
- Nov. 1997 Isolation of anti-T cell receptor mutants using yeast surface display. Michele C. Kieke¹, Bryan K. Cho², Eric T. Boder³, K. Dane Wittrup³, and David M. Kranz². Departments of ¹Cell and Structural Biology, ²Biochemistry, ³Chemical Engineering, University of Illinois at Urbana-Champaign. Autumn Immunology Conference Chicago, IL

Invited Presentations:

- Apr. 2007 Detecting the Human Papilloma Virus in Human Breast Cancer Cells.
Featured Seminar Speaker; Saint John's University, Collegeville, MN.
- Aug. 2005 Using RNA Interference to Induce Death in Cervical Cancer Cells.
Faculty Research Roundtable Talk, Concordia University Faculty Retreat;
Concordia University, Saint Paul, MN.
- Mar. 2002 The World of Worms: Why do biologists study *C. elegans*? Guest lecture in the
Department of Natural Science and Mathematics, for a genetics course taught by
Dr. Amy Gort; Concordia University, Saint Paul, MN.
- Mar. 1999 Engineering a T-cell receptor using yeast surface display. Department of
Biochemistry Spring Conference Speaker; University of Illinois at Urbana-
Champaign. Awarded "Honorable Mention" Student Talk.
- Oct. 1998 Engineering a T-cell receptor using yeast surface display. NIH Cell and
Molecular Biology/Molecular Biophysics Training Grant Symposium Speaker;
University of Illinois Beckman Institute, Urbana, IL.
Awarded "Best Student Talk."
- Sept. 1998 Engineering T-cell receptor single-chain proteins using yeast display.
Molecular Biophysics NIH Training Grant Seminar Series; University of Illinois
at Urbana-Champaign.
- May 1998 Immunotherapy: Enhancing the immune response using protein engineering.
Featured Seminar Speaker; Saint John's University, Collegeville, MN.

Professional References:

- Dr. Amy S. Gort, College of Arts and Sciences Dean, Associate Professor of Biology;
Concordia University—Saint Paul; 275 North Syndicate Street, Saint Paul, MN 55104.
gort@csp.edu, (651) 641-8814
- Dr. Margaret A. Titus, Department of Genetics, Cell Biology, and Development;
University of Minnesota; 420 Washington Avenue SE, Minneapolis, MN 55455.
titus@mail.ahc.umn.edu , (612) 625-8498
- Dr. David M. Kranz, Department of Biochemistry, University of Illinois at Urbana-
Champaign; 600 South Mathews Avenue, Urbana, IL 61801.
d-kranz@uiuc.edu, (217) 244-2821
- Ms. Melissa Michael, Life Sciences Teaching Lab Specialist, University of Illinois at
Urbana-Champaign; 607 South Mathews Avenue, Urbana, IL 61801.
mmichae@life.uiuc.edu, (217) 244-6238