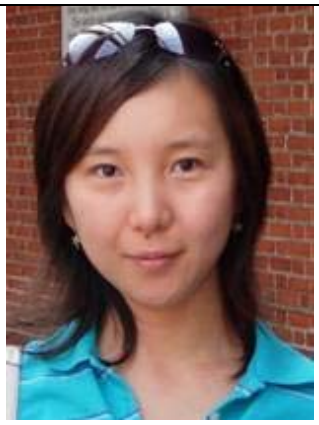
WISEST INITIATIVES / *DEPARTMENTAL TRANSFORMATION*

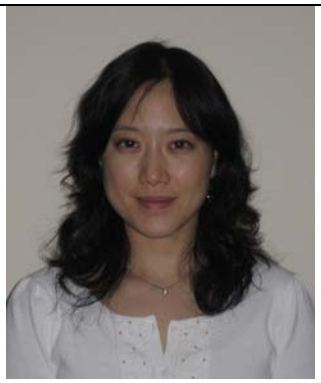
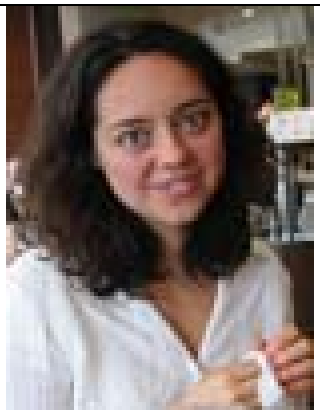
Recent Hires in STEM

Starting in Fall 2008:

Assistant Professor of Biological Sciences 3346 SES Office: (312) 355-0823 Fax: (312) 413-2435 Email: eminor@uic.edu her home page	 **Emily Minor**	Prof. Emily Minor is interested in understanding how species can adapt and thrive in a metropolitan environment, how we can further encourage the existence of native species, and how we can discourage the spread of exotic species in the Chicago area.
Assistant Professor of Chemistry 3235 SEL Office: (312) 413-2676 Fax: (312) 996-0431 Email: lauralin@uic.edu her home page	 **Laura Anderson**	Prof. Anderson is interested in new organic transformations that facilitate the synthesis complex organic molecules from simple and inexpensive starting materials for both pharmaceutical and material applications. She is expanding the scope, tolerance, and application of known pericyclic transformations as well developing and controlling new types of pericyclic reactions. Her goal is to design new methods to provide general solutions to practical problems using both physical organic and organometallic mechanistic studies in order to fully understand, control, and exploit the transformations she investigates.
Assistant Professor of Chemical Engineering CEB 211 Office: (312) 996-8249 Fax: (312) 996-0808 Email: liuying@uic.edu her home page	 **Ying Liu**	Prof. Liu's research group is interested in both physics and applications of nanoparticle suspensions for their advantages of targeting delivery and sustained release. Their research goal is to devise a Synergistic Drug Delivery System (SDDS) with optimized properties to control multiple-drug pharmacodynamics for diagnosis and treatment of complex diseases. SDDS based on self-assembling nanoparticles can (1) deliver imaging and therapeutic agents to specific sites or organs to increase bioavailability and reduce toxicity, (2) simultaneously deliver multiple imaging and therapeutic agents with desired pharmacokinetics and pharmacodynamics, and (3) deliver arbitrary combinations of oligonucleotides and small molecular compounds.

Assistant Professor of Electrical and Computer Engineering 1036 SEO Office: (312) 355-0311 Fax: (312) 996-6465 Email: wenjing@ece.uic.edu her home page	 **Wenjing Rao**	Prof. Rao's research interests lie in Reliability, Computer Aided Design (CAD), and novel computation paradigms in emerging nanoelectronic systems, defect and fault tolerance for highly unreliable systems, VLSI test, design for test (DFT) of digital systems.
Assistant Professor of Mathematics 421 SEO Office: (312) 996-2371 Fax: (312) 996-1491 Email: alina@math.uic.edu her home page	 **Alina Marian**	Prof. Marian's research interests are in moduli theory in algebraic geometry, complex geometry, and mathematical physics. Some of her recent work involve sheaves on Abelian surfaces and strange duality.
Assistant Professor of Mathematics Education 610 SEO Office: (312) 996-6168 Fax: (312) 996-1491 Email: martinez@math.uic.edu her home page	 **Mara V. Martinez**	Prof. Martinez's interests are in the use of the French Didactique as both a theoretical and methodological framework in research in mathematics education.
Assistant Professor of Mathematics 536 SEO Office: (312) 996-7694 Fax: (312) 996-1491 Email: nenciu@math.uic.edu her home page	 **Irina Nenciu**	Prof. Nenciu's research interests research interests are in Lie algebraic structures for discrete integrable systems, long-time asymptotics for integrable partial differential equations and their perturbations, Riemann-Hilbert problems, beta ensembles of random matrices, spectral theory for Schroedinger operators, and orthogonal polynomials

Starting in 2009:

Assistant Professor of Chemistry 2210A SEL Office: (312) 355-0838 Fax: (312) 996-0431 Email: jhmin@uic.edu her home page	 **Jung-Hyun Min**	The goal of Prof. Min's research is to under- stand the mechanism of DNA-damage repair at the structural and biochemical levels, using the nucleotide excision repair (NER) pathway as a paradigm. NER refers to the cellular process by which a DNA lesion is removed by dual incision of the damaged strand on either side of the lesion, followed by re-synthesis of the resulting gap. Failure to repair DNA damage by NER can cause cancer and/or neuro-developmental abnorm- alities. She will integrate her back ground in structural biology and enzymology and her expertise in X-ray crystallography to inves- tigate the recognition and processing of DNA lesions in DNA-damage repair pathways.
Assistant Professor of Chemical Engineering, Resident Associate, Argonne National Laboratory CEB 213 Office: (312) 355-5149 Fax: (312) 996-0808 Email: akpa@uic.edu her home page	 **Belinda S. Akpa**	Prof. Akpa's research interests include imaging of flow systems; spatially resolved chemical conversion and selectivity of a heterogeneous catalytic reaction occurring in a fixed bed reactor; hydrodynamic dispersion in porous media, diffusive mixing in microchannels, fractional order NMR analysis of gel and tissue structures. One of her goals is to uncover the mechanism of Lipid Rescue technology for reversing anesthetic toxicity using NMR and to understand the mechanism of caveolae formation in endocytosis. Her primary tools are magnetic resonance imaging and numerical simulations.
Assistant Professor of Computer Science 918 SEO Office: (312) 355-1310 Fax: (312) 413-0024 Email: llyons@uic.edu her home page	 **Leilah B. Lyons**	Prof. Lyon's research interests are in intelligent systems. Her background includes the design of multi-user, multi-device software activities for classrooms, the design of single-user educational games and activities for museums and websites, and the design and construction of museum exhibits. Her research explores design alternatives for distributed multi-user software-based museum exhibits in the context of science museums, where exhibits are predominantly hands-on inquiry-based activities. She identifies factors that support and encourage the cooperative use of software-based exhibits in these highly-interactive science centers. She is in Computer Science and Learning Science.

Assistant Professor of Electrical and Computer Engineering 1039 SEO Office: (312) 996-1013 Fax: (312) 996-6465 Email: devroye@ece.uic.edu her home page	 **Natasha Devroye**	Prof. Devroye's general research interests fall in the areas of information theory, wireless communications, optimization and signal processing. More specifically, her recent research has focused on the fundamental limits (information theoretic) of communication in wireless and cognitive networks. Her recent research has focused on the fundamental limits (information theoretic) of communication in wireless and cognitive networks, such as: (a) the cognitive radio channel, (b) asymmetric transmitter cooperation, (c) scaling laws of wireless/cognitive networks, and (d) multiplexing gains of wireless networks.
Assistant Professor of Physics SES Office: (312) 413-8164 Lab: (312) 413-8164 Fax: (312) 996-9016 Email: ursulaps@uic.edu her home page	 **Ursula Perez-Salas**	Professor Perez-Salas is a biophysicist. Her research is focused on investigating the physical properties of biological membranes and obtaining structure information on membrane proteins using solutions of lipid mixtures as model systems. The compositions in these mixed lipid solutions will emulate the compositions found in biological membranes and thus the corresponding results will be extrapolated to the biological membranes.