
BIOGRAPHICAL SKETCH**DO NOT EXCEED TWO PAGES**

NAME Ginell, Stephan Lawrence	POSITION TITLE Biophysicist/Crystallographer
eRA COMMONS USER NAME (credential, e.g., agency login) Ginell	

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Kansas Wesleyan University, Salina KS	A.B.	1971	Physics
Roswell Park Mem. Inst., SUNY at Buffalo	M.S.	1975	Natural Sciences
Roswell Park Mem. Inst., SUNY at Buffalo	Ph.D.	1980	Biophysics

A. Professional Experience:

1969 - 71	Lab Assistant, Physics Department, Kansas Wesleyan University, Salina, Kansas
1971 - 72	Physics and Mathematics teacher, United States Peace Corps Kisoro, Uganda, East Africa
1978 - 80	Research Affiliate (Graduate student research position) Biophysics Department, Roswell Park Memorial Institute, Buffalo, NY
1980 - 81	Postdoctoral Fellow, Institute of Material Science University of Connecticut, Storrs, CT
1981 - 83	Staff Associate, Biochemistry Department College of Physicians and Surgeons of Columbia University, NY
1983 - 84	Research Fellow, Department of Biochemistry UMDNJ-Rutgers Medical School, Piscataway, NJ
1984 - 89	Research Associate, Institute for Cancer Research, Fox Chase Cancer Center, Philadelphia, PA
1989 - 92	Research Assistant Professor, Lecturer/Assistant Professor, Department of Chemistry, Rutgers University, Piscataway, NJ
1992 - present	Guest biophysicist, National Synchrotron Light Source, Brookhaven National Laboratory, Upton, NY
1992 - 1997	Assistant Scientist, Argonne National Laboratory, Argonne, IL
1997 - present	Biophysicist/Crystallographer, Argonne National Laboratory, Argonne, IL

B. FELLOWSHIPS, AWARDS and SOCITIES:

7/77 - 10/78	New York State Predoctoral Fellowship at Roswell Park
9/74 - 7/77, 1/73-9/73	NIH Predoctoral Training Grant at Roswell Park
1971	Physics Society Award, Kansas Wesleyan University
6/70 - 8/70	NSF CAPE Summer Fellowship at Physics Department, Kansas State University, Manhattan, KS
	Sigma Xi, American Crystallographic Association, AAAS, NY Academy of Sciences

C. PROFESSIONAL ACTIVITIES: (recent)

2013	Co-Session Chair and organizer for session <i>Specialized MX experiments</i> , American Crystallographic Association 2013 annual conference in Honolulu, HI
2012	Co-Session Chair and organizer for session <i>Radiation Damage</i> , American Crystallographic Association annual conference Boston, MA, July 28 to August 1, 2012.
2012	Co-Organize workshop session 6APCF: <i>Crystals, Robots, and X-rays</i> at the Advanced Photon Source 2012 Users meeting, Argonne, IL, May 7- May 10, 2012.
2011-2014	Elected member of the American Crystallographic Association Communications Standing Committee 2011 – 2014.
2010 – present	Biosciences Point of Contact for the construction of the Advanced Protein Crystallization Facility
2009 – 2011	Member of the ANL LMS Risk Management Process Team

2007 - 2010	Member (on call) NIH Grant review committee: Special Emphasis Panel Chemistry and Biophysics SBIR/STTR Panel 2007/05 ZRG1 BCMB-L (10) (B), 2007/10 ZRG1 BCMB-L (10) B, ZRG1 IMST-G 10 study section ("Bioanalytical Chemistry and Biophysics") and ZRG1 IMST-G (95)
2005 – present	Member Argonne National Lab Institutional Biosafety Committee (IBC)
2004 - 2007	Elected American Crystallographic Association Macromolecular SIG Chair
2003 - 2006	Elected Representative on Advanced Photon Source User Organization Steering Committee (APSUO)
2005	Member of 2005 APSUO annual meeting organizing committee and co-organizer of "The Art of Collecting Good Diffraction Data" workshop.
2005	Program committee Member for American Crystallographic Association 2005 annual meeting Orlando, Florida
2004	Co-organizer of 2005 APSUO annual meeting workshop "The Protein Crystallography Technology and Logistics Collaboration"
1996 - present	Coordinator and Technical Liaison ANL Structural Biology Center User program
1996 - present	Safety officer for Structural Biology operations at the APS
1997 - present	Member (present and past) of APS committees Beamline Allocation Committee, II task force, Scheduling task force, User proposals development, Experimental Safety Approval Form task force, CAT safety assessment etc.
1999 - 2002	ANL Biosciences Safety committee
1999 - 2002	SER CAT Safety committee (external advisor)

B, Selected peer-reviewed publications (out of 42)

- Pokkuluri PR, Laible PD, Crawford AE, Mayfield JF, Yousef MA, Ginell SL, Hanson DK, Schiffer M. (2004) Temperature and cryoprotectant influence secondary quinone binding position in bacterial reaction centers. *FEBS Lett.* 570: 171-4.
- Shu, C. Preissner, D. Nocher, Y. Han, J. Barraza, P. Lee, W.-K. Lee, Z. Cai, S. Ginell, R. Alkire, K. Lazarski, R. Schuessler, A. Joachimiak, (2004) Design and development of a robot-based automation system for cryogenic crystal sample mounting at the Advanced Photon Source. *AIP Conf. Proc.*, 705, 1201 – 1204.
- Shu, D., Toellner, T.S., Alp, E.E., Maser, J., Mancini, D., Lai, B., McNulty, I., Joachimiak, A., Lee, P., Lee, W.-K., Cai, Z., Lee, S.-H., Han, Y., Preissner, C., Ginell, S., Alkire, R., Schuessler, R. (2003) High-precision positioning mechanism development at the Advanced Photon Source. *2nd International Workshop on Mechanical Engineering Design of Synchrotron Radiation Equipment and Instrumentation*, 214 – 222.
- Pokkuluri PR, Laible PD, Crawford AE, Mayfield JF, Yousef MA, Ginell SL, Hanson DK, Schiffer M. (2004) Temperature and cryoprotectant influence secondary quinone binding position in bacterial reaction centers. *FEBS Lett.* 570, 171-4.
- Rosenbaum, G., Alkire, R., Evans, G., Rotella, F. J., Lazarski, K., Zhang, R., Ginell, S., Duke, N., Naday, I., Lazarz, J., Molitsky, M. J., Keefe, L., Gonczy, J., Rock, L., Sanishvili, R., Walsh, M. A., Westbrook, E., and Joachimiak, A. (2006) The Structural Biology Center 19ID undulator beamline : facility specifications and protein crystallographic results.: *J. Synchrotron Radiat* **13** 30-45.
- Petrova T, Ginell S, Mitschler A, Hazemann I, Schneider T, Cousido A, Lunin VY, Joachimiak A, Podjarny A. (2006) Ultrahigh-resolution study of protein atomic displacement parameters at cryotemperatures obtained with a helium cryostat. *Acta Crystallogr D Biol Crystallogr.* **62** 1535-44.
- Borek D, Ginell SL, Cymborowski M, Minor W, Otwinowski Z. (2006) The many faces of radiation-induced changes. *J Synchrotron Radiat.* **14** 24-33.
- Biadene M, Hazemann I, Cousido A, Ginell S, Joachimiak A, Sheldrick GM, Podjarny A, Schneider TR. (2007) The atomic resolution structure of human aldose reductase reveals that rearrangement of a bound ligand allows the opening of the safety-belt loop. *Acta Crystallogr D Biol Crystallogr.* **63** 665-72.
- Blakeley MP, Ruiz F, Cachau R, Hazemann I, Meilleur F, Mitschler A, Ginell S, Afonine P, Ventura ON, Cousido-Siah A, Haertlein M, Joachimiak A, Myles D, Podjarny A. (2008) Quantum model of catalysis based on a mobile proton revealed by subatomic x-ray and neutron diffraction studies of h-aldose reductase. *Proc Natl Acad Sci U S A.* **105** 1844-8.
- Zhao HT, Hazemann I, Mitschler A, Carbone V, Joachimiak A, Ginell S, Podjarny A, El-Kabbani O. (2008) Unusual binding mode of the 2S4R stereoisomer of the potent aldose reductase cyclic imide inhibitor fidarestat (2S4S) in the 15 K crystal structure of the ternary complex refined at 0.78 Å resolution: implications for the inhibition mechanism. *J Med Chem* **51** 1478-81.
- Petrova, T., Lunin V.Y., Ginell S., Hazemann I., Lazarski, K., Mitschler, A., Podjarny, A. and Joachimiak, J (2009) X-Ray-Radiation-Induced Cooperative Atomic Movements in Protein. *J Mol Biol.* **387**(5) 1092-105.
- Zheng, J., Birktoft, J. J. Chen, Y., Wang, T., Sha, R., Constantinou, P.E., Ginell, S. L., Mao, C., and Seeman, N. C. (2009) From molecular to macroscopic via the rational design of a self-assembled 3d dna crystal. *Nature*, **461** 74-77.

Program Director/Principal Investigator (Last, First, Middle): PI Name

- Petrova T, Ginell S, Mitschler A, Kim Y, Lunin VY, Joachimiak G, Cousido-Siah A, Hazemann I, Podjarny A, Lazarski K, Joachimiak A. (2010) X-ray-induced deterioration of disulfide bridges at atomic resolution. *Acta Crystallogr D Biol Crystallogr.* 1075-91.
- Nguyen N, Birktoft JJ, Sha R, Wang T, Zheng J, Constantinou PE, **Ginell** SL, Chen Y, Mao C, Seeman NC. (2012) The absence of tertiary interactions in a self-assembled DNA crystal structure. *J Mol Recognit.* 2012 Apr;25(4):234-7. Erratum (2012) *J Mol Recognit.* (9):494.
- Cousido-Siah A, Petrova T, Hazemann I, Mitschler A, Ruiz FX, Howard E, **Ginell** S, Atmanene C, Van Dorselaer A, Sanglier-Cianf erani S, Joachimiak A, Podjarny A. (2012) Crystal packing modifies ligand binding affinity: The case of Aldose Reductase. *Proteins.* 80(11):2552-61.

Patents:

Deming Shu, Andrzej Joachimiak, Curt A. Preissner, Daniel Nocher, Yufeng Han, Yuan Barraza, Peter Lee, Wah-Keat Lee, Zhonghou Cai, Stephan Ginell, Randy Alkire, Robert G. Schuessler U.S. Pat. No. 7,162,888, issued Jan. 16, 2007