## INVITED LECTURES Zygmunt (Karol) Gryczynski, Ph.D.

Nanophotonic Approach to Single Molecule Detection Detecting and Monitoring Single Antibody. University of Shimane, November 7, 2008. Matsue, Japan.

Surface Plasmon Assisted Microscopy (SPAM) and Single Molecule Detection. 4<sup>th</sup> Wroclaw-Prague Seminar on Biophysics of Lipids. October 23-25, 2008. Wroclaw, Poland

**Plasmon Enhanced Fluorescence for Biomedical Applications.** 7th International Weber Symposium on Innovative Fluorescence Methodologies in Biochemistry and Medicine, June 6-12, 2008. Kauai, HI

**Plasmonics in Fluorescence and Microscopy**. 1st Annual Course on Principles of Fluorescence Techniques. April 11, 2008. Chicago, IL

RatiometricFRET-based Surface Confined Detection of Mi-RNA. San Jose, Single Molecule Spectroscopy and Imaging. January 19-20, 2008. Proceedings of SPIE Vol. BO127

**Novel Applications of Fluorescence Spectroscopy From Microscopy to Tissue Imaging.** Dept. of Engineering, University of California, Davis, January 19, 2008

**Single Molecule Immunoassay - Nanophotonic Approach.** University of California, Sacramento, January 18, 2008

Nanophotonics Platforms for Biomedical Applications. University of Shimane, Izumao City, Japan. December 20, 2007.

Surface Plasmon Assisted Microscopy (SPAM) New Way to Study Molecular Dynamics. Taichung, Taiwan. December 16, 2007.

**Nanophotonics Platforms for Biomedical Applications.** Dep. Of Chemical Engineering, Texas A&M. College Station, TX, October 14, 2007.

**Fluorescence and FRET - Biophysical Applications.** Dept. of Physics. University of North Texas, Denton TX. August 20, 2007.

Nanoplasmonic Platforms for Ultrasensitive And Rapid Detection of Physiological Markers. Philip Morris Symphosium. Washington, DC, December, 2006

**Nanoplsmonic Platforms for Bioassays**. International Symposium on Biophotonics, Nanophotonics, and Metamaterials, Hanghzou, China, October 2006.

Surface Plasmon Coupled Emission Emerging Tool to Study Conformational Processes on the Level of Single Molecule. Dept. of Chemistry, Chinese Academy of Science, Beijing, China, October 2006.

**Surface Plasmon Coupled Emission. Biomedical Application.** University of California, Laboratory for Fluorescence Dynamics. Irvin, April 2006.

**Plasmon Enhanced Fluorescence; Ultrasensitive Detection and Biomedical Applications.** Biophotonics in Australia, Macquarie University, Sydney, Australia, February 2006.

Radiative Decay Engineering: Plasmonics Effects in Fluorescence. Biophotonics 2005, National Yang-Ming University, Taipei, October 2, 2005

**Basic Definitions and Principles of Fluorescence. Time-Resolved Phenomena.** Biophotonics 2005, National Yang-Ming University, Taipei, October 1, 2005

Biomedical Applications of Fluorescence Spectroscopy: Novel Approach to Ultrasensitive Detection.

Centocor (Johnson & Johnson), King of Prussia, PA, July 22, 2005.

Biomedical Applications of Fluorescence Spectroscopy: Nanotechnology Approach to Ultrasensitive Detection. University of Vermont, Burlington, June 1, 2005.

Metal Enhanced Fluorescence Spectroscopy: Novel Approach to Immunoassay Technology. Ventana, Tucson, AZ. April 15, 2005.

Plasmons in Nanostructure Arrays. Possibility for High Fluorescence Enhancement in Biomedical Applications. New Jersey Nanotechnology Consortium (NJNC) Nanotechnology Conference, Murray Hill, NJ. February 3, 2005

**Biomedical Applications of Fluorescence Spectroscopy: Novel Approach to Immunoassay Technology.** Amgen, Thousand Oaks, CA. January 12, 2005.

**Radiative Decay Engineering: The Use of Metallic Structures to Control Fluorophore Emission.** 10<sup>th</sup> International Workshop on "Single Molecule Detection and Ultrasensitive Analysis in Life Science. Berlin, Germany. September 22-24, 2004

Surface Plasmon-Coupled Emission – Novel Approach to Study Biomolecular Processes. Biophysics Resource in the Structural Biophysics Laboratory, Center for Cancer Research, National Cancer Institute at Frederick, Frederick MD. July 2004

Surface Plasmon-Coupled Emission – New Technology for Studying Biomolecular Processes. Gordon Research Conference on Reversible Associations in Structural and Molecular Biology. Ventura Ca. January 2004.

Metal-Enhanced Fluorescence: A novel Approach to Ultra-Sensitive Fluorescence Sensing Assay Platform. Z. Gryczynski, J. Malicka, I Gryczynski, E. Matveeva, C. Geddes, K. Aslan, and J.R. Lakowicz. SPIE Vol. (2004).

**Long-Wavelength Long-Lifetime Luminophores for Cellular and Tissue Imaging.** (Invited lecture) SPIE Vol. (2004).

**Time-resolved Fluorescence Technologies and the Living Cell**. The 1<sup>st</sup> International Cytomics Conference. Coldra Woods, Newport, Wales UK, May 2003.

**Metal Enhanced Fluorescence in Assay Development**. IBC,s 6<sup>th</sup> Annual Conference on Assay Development. San Diego, CA. October 16-18, 2002.

**Emerging Fluorescence Technology for Drug Discovery**. Chugai Pharma USA, Inc. San Diego, CA. October 17, 2002

**Novel Fluorescence Methods for High Throughput Screening**. High Throughput Screening for Drug Discovery. Boston, July 16-18, 2002.

Fluorescence of Proteins. Brandeis University. Waltham, MA. July 17, 2002.

**Novel Fluorescence Sensing and Fluorescent Biosensors**. 2002 Gordon Research Conference on Laser in Medicine and Biolgy. July 14-19, 2002.

Radiative Decay Engineering to Make Non-Fluorescent Molecules Fluorescent. University of Maryland, Bioscience Breakfast "Science That Means Business", Rockville, MD. May 22, 2002.

**Novel Methods of Fluorescence Sensing: Application to High-Throughput Screening.** Effective Drug Discovery, Philadelphia, PA. May 6-8, 2002.

Biophysical Application of Fluorescence Spectroscopy. Dept. of Molecular Biology. University of Medicine

and Dentistry of New Jersey, Stratford, NJ, November 2001.

Fluorescence Spectroscopy, Basic Definition and Biomedical Applications. Chugai Biopharmaceuticals, Inc. San Diego, CA. September 6, 2001.

Fluorescence Sensing, Biomedical Applications. Chugai Biopharmaceuticals, Inc. San Diego, CA, September 7, 2001.

**Novel Methods in Fluorescence Sensing**. 1<sup>st</sup> International Conference: Advances in High Throughput Screening Technologies. Atlantic City, NJ, February 5-7, 2001.

Biophysical Application of Fluorescence Spectroscopy. Univ. of S. Texas. Dallas, January 20, 2001.

Fluorescence Spectroscopy in Pharmaceutical Research. Purdue Pharma L.P. New York, NY. November 6, 2000.

Novel Sensing Methods. Purdue Pharma L.P. New York, NY. November 7, 2000.

**Possible Applications of Novel Fluorescence Sensing in Paper Product Identifying**. Westvaco, Maryland. November 2, 2000.

**Emerging BioMedical Applications of Time-Resolved Fluorescence Spectroscopy**. Current Advances In Biophotonics And Nanomedicine. October 19-21, 2000. Buffalo.

Novel Fluorescence Sensing Methods. University of Warsaw. July 2, 2000.

Recent Development in Fluorescence Spectroscopy. Multi-Photon Excitation, New Luminophores, And Novel Sensing Methods. Photophysics in Tecnology and Medicine. June 26-30, 2000. Poznan, Poland.

**New Fluorescence Methods for Bioimaging Assays.** Invited Lecture on PerkinElmer Life Sciences - New Technologies for Imaging in Bioassays. June 2000. Royal Collage of Physicians, London.

Fluorescence Lifetime Standards. Luminescence Standards Workshop. NIST. Gaithersburg, September 8-9, 1999.

Novel Methods in Fluorescence Sensing. Microscopy & Microanalysis. Portland, Oregon. August 1-5, 1999.

Long-Lifetime Fluorophores. Microscopy & Microanalysis. Portland, Oregon. August 1-5, 1999.

**Novel Methods in Fluorescence Sensing.** SPIE Vol. Invited Lecture on Enviromental and Industrial Sensing. 1999

Fluorescence Spectroscopy. Basics and Applications. Purdue Pharma L.P. New York, NY. December 1, 1998.

Hemoglobin Structure Probed by Fluorescence Spectroscopy under High Hydrostatic Pressure. Lecture on 40th Annual Biophysical Meeting, 17-21 February (1996). Biophys. J. Vol. 70. Su-PM-C1.

Heme-Protein Interaction and Hemoglobin Stability under High Hydrostatic Pressure Probed by Fluorescence Spectroscopy. Ninth Annual Gibbs Conference on Biothermodynamics. October 1995