



Department of Molecular Biology and Immunology
Department of Cell Biology and Genetics
University of North Texas Health Science Center
3500 Camp Bowie Boulevard
Fort Worth, TX 76107

(817)735-0148, (817)735-5471

Fax: (817)735-2118



UNIVERSITY of NORTH TEXAS
HEALTH SCIENCE CENTER

AT FORT WORTH



Letter from Thomas Yorio



The Center for Commercialization of Fluorescence Technologies (CCFT) is a newly created center at the University of North

Texas Health Science Center. The center was launched after the Health Science Center received a "Research Superiority" grant from the Emerging Technology Fund (ETF) of the State of Texas. Texas Governor Rick Perry established the ETF to enhance the development of biotechnology in the state, to help stimulate the economy by attracting new high tech companies and to provide new jobs for Texans.

We were fortunate to attract a team of biophysicists lead by two brothers, Ignacy and Zygmunt (Karol) Gryczynski. They were joined by another group of talented biochemists and biophysicists already at the health science center in establishing this new center focused on producing new technologies that utilize fluorescence. These scientists recognized the need to develop and commercialize new approaches for diagnostics and treatment using emerging fields of nanophotonics and nanotechnology. They have already obtained a number of patents, established

collaborative research activities with biotechnology companies and created a training program that will help establish the next generation of scientists and technicians.

The CCFT is positioned to make major contributions in establishing and recruiting new industrial partners that will increase the economic potential within the state while increasing the Texas workforce.

The center's core goal is to efficiently transfer new technologies for commercialization and fast utilization by the public. The center epitomizes our "3D - discovery-development-delivery" approach to bringing our research discoveries to market quickly so we can have an impact on the health of the population.

Thomas Yorio, Ph.D.
Senior Vice President for Research and Dean, Graduate School of Biomedical Sciences
UNT Health Science Center
3500 Camp Bowie Blvd.
Fort Worth, Texas 76107

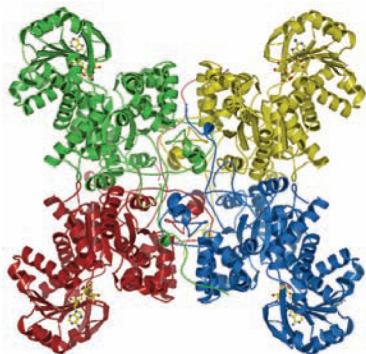
Acknowledgement



We acknowledge Texas Governor Rick Perry and the State of Texas Legislature for their generous support through the Emerging Technologies Fund grant.

About CCFT

CCFT's mission is to provide expertise on fluorescence spectroscopy and microscopy, and to promote fluorescence technologies.



Center for Commercialization of Fluorescence Technologies (CCFT)

is located in the Department of Molecular Biology and Immunology at the University of North Texas Health Science Center in Fort Worth, Texas.

CCFT was created on the basis of the laboratories of Drs. Gryczynski (Fluorescence), Dr. Ben Harris (Protein Chemistry) and Dr. Julian Borejdo (Muscle Science).

CCFT consists of three spectroscopy laboratories, protein chemistry room, RNA research room, muscle research room, surface preparation room and chemistry preparation room, with a total area of 3,200 sq. ft., plus 650 sq. ft. of faculty offices.

**Find us on the web:
www.hsc.unt.edu/CCFT**

About us



Dr. Zygmunt Gryczynski is a Professor in the Department of Molecular Biology and Immunology with a secondary appointment in the Department of Cell Biology and Genetics. His research interest is in fluorescence and bionanotechnology. His role is to coordinate the overall activity of CCFT.

Dr. Ignacy Gryczynski is a Professor and Director of the Microscopy Core Facility in the Department of Molecular Biology and Immunology with a secondary appointment in the Department of Molecular Biology and Immunology. His research interest is in cellular and molecular fluorescence and time-resolved spectroscopy. His role is to design and oversee the spectroscopy laboratories.

Dr. Julian Borejdo is a Professor in the Department of Molecular Biology and Immunology. His research interest is in muscle science, cellular and molecular fluorescence and microscopy. His role is to design and supervise the microscopy laboratories, and to provide expertise on microscopy experiments.

Dr. Ben Harris is a Regents Professor in the Department of Molecular Biology and Immunology. His research interest is in protein structures. His role is to provide expertise on protein chemistry and structures.

Dr. Eva Matveeva is a Research Assistant Professor in the Department of Molecular Biology and Immunology. Her research interest is in immunochemistry. Her role is to oversee the substrate surface preparations and to provide expertise on fluorescence immunoassays.

Dr. Niils Calander is an Associate Professor in the Department of Molecular Biology and Immunology. He is an expert in nanophotonics.

Dr. Gabor Laczko is an Associate Professor in the Department of Molecular Biology and Immunology. He is an expert in time-resolved fluorescence instrumentation.

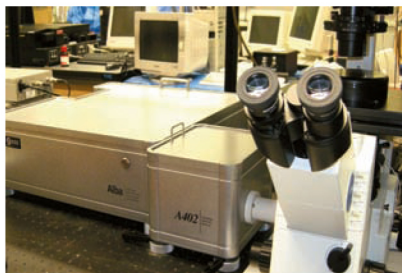
Dr. Irina Akopova is a Research Associate in the Department of Molecular Biology and Immunology. Her research interest is in muscle science and microscopy. Her role is to supervise the muscle fibers preparation and conduct atomic force microscopy experiments.

Drs. Mariusz Szabelski and Rafal Luchowski are post-doctoral fellows.

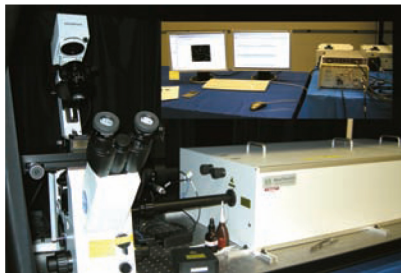
John Talent is a Research Assistant in the Department of Molecular Biology and Immunology. His role is to provide technical support for the laboratories.



AFM



ALBA



MT200

Research emphasis:

Optical and Quantum Processes to Study Biological Systems in Nanoscale:

Proteins, DNA/RNA, Cells, Tissue

Spectroscopy and Fluorescence:

Absorption (Spectra, Linear Dichroism);
Fluorescence, Phosphorescence

Time-Resolved Spectroscopy:

Time-Resolved Fluorescence and
Phosphorescence; Excited State
Processes

Molecular/Macro molecular Dynamics:

Protein Dynamics; Protein Dissociation/
Association; DNA/RNA

Multi-Photon Processes:

Multi-Photon Induced Fluorescence
(Two-Photon, Three-Photon, Four-
Photon Excitation); Light Quenching
by Stimulated Emission; Two-Pulse
Fluorescence

Imaging: Cell; Tissue

Fluorescence Based Sensing:

Novel Sensing; Enhanced
Immunoassays

Nanotechnology and Plasmonics:

Metal Enhanced Fluorescence; Surface
Plasmon Coupled Emission;
Surface Plasmon Assisted Microscopy

Fluorescence Microscopy

Single Molecule and FCS;
TIRF/SPCE Confocal Microscope

We teach cellular and molecular fluorescence



UNIVERSITY of NORTH TEXAS
HEALTH SCIENCE CENTER
AT FORT WORTH

Contact Info

Dr. Zygmunt "Karol" Gryczynski
zgrycyn@hsc.unt.edu
(817)735-5471

Dr. Irina Akopova
iakopova@hsc.unt.edu
(817)735-5471

Our Address

Department of Molecular Biology and Immunology
Department of Cell Biology and Genetics
University of North Texas Health Science Center
3500 Camp Bowie Boulevard, Fort Worth, TX 76107

(817)735-0148, (817)735-5471
Fax: (817)735-2118