



CRC 2009

September 18-19th,
Northwestern University

NSF-CRC Third Annual Symposium on DNA Photonics

Evanston, Illinois

September 18-19, 2009

All talks are in Ryan Hall, Room 4003, and are open to the public without prior registration or fees.

Friday, September 18, 2009

DNA Structure and Reactivity in the Ground and Excited States

8:30	Continental Breakfast and Registration
9:00	Opening lecture: Fred Lewis Synthesis, Structure, and Properties of Oligonucleotide Conjugates
10:00	Karsten Siegmund – Lewis group NMR Studies of Conjugate Hairpin Structures
10:45	Break
11:00	Martin McCullagh – Schatz group Molecular Dynamics Study of TT Dimerization
11:45	George Schatz Computational Studies of DNA Structure
12:45	Discussion
1:00	Lunch – Allen Center
2:15	Keynote Address: Dimitra Markovitsi, CNRS, Gif-sur-Yvette, France Interaction of UV Radiation with DNA Helices: From Photon Absorption to Photoproduct Formation
3:15	Break
3:30	Torsten Fiebig – Boston College Excitons and Exciplexes in DNA
4:30	Anton Trifonov – Fiebig Group Broadband Femtosecond Pump-Probe Spectroscopy on short DNA Hairpins
5:15	Discussion
6:00	Dinner

Saturday, September 19, 2009

DNA Electron Transfer

8:30	Continental Breakfast
9:00	Keynote Address: David Beratan, Duke University “Steering Electrons on Moving Pathways”
10:00	Break
10:15	Alex Burin, Tulane University Kinetics of Charge Separation and Charge Recombination in DNA
11:15	John Leveritt and Carmen Dibaya – Burin group One-Dimensional Confinement of Electric Fields and Humidity-Dependent DNA Conductivity
12:00	Lunch
1:00	Mike Wasielewski Fundamental Mechanisms of Charge Transfer within Donor-Bridge-Acceptor Molecules
2:00	break
2:15	Raanan Carmieli – Wasielewski group EPR Studies of Spin Dynamics
3:00	Josh Vura-Weis – Wasielewski group Hole Transport Dynamics in DNA
3:45	Discussion
4:00	adjourn

This symposium made possible by a grant from the National Science Foundation, Collaborative Research in Chemistry initiative (CHE-0628130). Principle investigators for this project are Alex Burin, Torsten Fiebig, Frederick Lewis, George Schatz, and Michael Wasielewski