Santa Clara Valley Science and Engineering Fair Association

P.O. Box 307, Los Altos, California 94023 • 650-856-1289 www.science-fair.org

Celebrating Consecutive Regional Science Fairs Since 1960
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MENTOR PROFILE FOR STUDENTS TO REVIEW

Please fill in the appropriate information boxes below, and email this document to rvwcwl@yahoo.com for posting on our website www.science-fair.org.

Last name: Ulrich

First name: Sebastien

College and degree(s) earned: PhD in molecular and supramolecular organic chemistry, Strasbourg, France. MSc in chemistry, Strasbourg, France.

Email address: contact mentors@science-fair.org

Web page (if applicable):

Phone number and available hours to call:

Your background summary: (Please limit to 200 words)

2010/01- Present:

Post-doctoral research assistant, Prof. E. T. Kool, Stanford University, Stanford, USA

Probing steric effects in DNA transcription with synthetic nucleosides

2009/01-2010/01

Post-doctoral research assistant, Prof. H. L. Anderson, Oxford University, Oxford, UK

• Porphyrin-Peptide conjugates for Photodynamic Therapy

2005/10-2008/09

PhD Student, Laboratory of Supramolecular Chemistry, Prof. J.-M. Lehn, I.S.I.S., Strasbourg, France

 Design, synthesis and application of molecular switches in dynamic chemistry. Thesis: "Morphological Switching and Constitutional Dynamics"

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Briefly write about your science and/or engineering interests:

MOLECULAR AND SUPRAMOLECULAR CHEMISTRY AND BIOCHEMISTRY

- ➤ ORGANIC SYNTHESIS: Heterocycles, porphyrins, peptides, oligonucleotides, bioconjugation techniques
- ➤ ANALYTICAL CHEMISTRY: 1D, 2D, DOSY NMR; UV-Vis spectroscopy; MALDI, ESI MS; HPLC
- > SUPRAMOLECULAR CHEMISTRY: Organic and inorganic self-assembly, molecular switches
- ➤ **BIOCHEMISTRY**: Enzymatic studies (RNA Pol.), radioisotopic labeling (³²P), gel electrophoresis
- ➤ MEDICINAL CHEMISTRY: Photodynamic therapy, cell cultures, fluorescence imaging

Projects from which scientific category (one or more) would you be interested in mentoring? Categories are explained in detail at http://synopsys.championship.googlepages.com/scientificcategoriesforprojects.

Chemistry and Biochemistry

If you are a past Science Fair Judge, list scientific categories which you judged:

Chemistry

If you are a past Science Fair Judge, list fairs by name in which you participated (local school fair, Synopsys Championship, CSSF, ISEF, etc.)

ISEF 2010