

CURRICULUM VITAE

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DATE: Sep-18

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DATE OF FIRST EMPLOYMENT AT UI: August 2006

DATE OF TENURE: July 2011

IMMIGRATION STATUS: Permanent resident (green card holder)

PROFESSIONAL PREPARATION:

- 2006 Ph.D (Chemistry), Univ. Southern Denmark, Odense, Denmark (supervisor: Jesper Wengel)
- 2004 M.Sc (Chemistry), Univ. Southern Denmark, Odense, Denmark (supervisor: Jesper Wengel)
- 2000 B.Sc (Chemistry), Univ. Southern Denmark, Odense, Denmark (supervisor: JIL Iversen, deceased)

EXPERIENCE:

- 2017- Professor, Dept. Chemistry, Univ. Idaho
- 2011-2017 Associate Professor, Dept. Chemistry, Univ. Idaho
- 2006-2011 Assistant Professor, Dept. Chemistry, Univ. Idaho

- 2013-2016 Affiliate Faculty, Dept. Biological Sciences, Univ. Idaho
- 2011-2014 Adjunct Faculty, Dept. Chemistry, Washington State University
- 2006-2013 Affiliate Faculty, Neuroscience Graduate Program, Univ. Idaho

- 2016- Retained as a subject matter expert on three litigations pertaining to DNA sequencing
- 2016-2017 Retained as a subject matter expert on a litigation pertaining to siRNA
- 2011-2015 Consultant for Minitube of America (now MOFA Global)
- 2011-2012 Consultant for ISIS Pharmaceuticals Inc (now Ionis Pharmaceuticals)

SCHOLARSHIP ACCOMPLISHMENTS:

Publications:

62 peer-reviewed articles and reviews (according to Google Scholar: 1350 citations, h-index = 21, i10-index = 40); eight patent applications (three issued); two book chapters; 35 published conference proceedings/abstracts; one published book review.

Peer Reviewed Journal Articles and Reviews:

[62] P. J. Hrdlicka* and S. Karmakar. 25 Years and still going strong: 2'-O-(Pyren-1-yl)methylribonucleotides - Versatile building blocks for applications in molecular biology, diagnostics and materials science. *Org. Biomol. Chem.*, **2017**, *15*, 9760-9774.

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- [60] M. Kaura and P. J. Hrdlicka*. Efficient discrimination of single nucleotide polymorphisms (SNPs) using oligonucleotides modified with C5-pyrene-functionalized DNA and flanking Locked Nucleic Acid (LNA) monomers. *Chem. Asian J.*, **2016**, *11*, 1366-1369.
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- [56] D. C. Guenther, S. Karmakar and P. J. Hrdlicka*. Bulged Invader probes: Activated duplexes for mixed-sequence dsDNA recognition with improved thermodynamic and kinetic profiles. *Chem. Commun.*, **2015**, *51*, 15051-15054.
- [55] B. A. Anderson, S. Karmakar and P. J. Hrdlicka*. Mixed-sequence recognition of double-stranded DNA using enzymatically stable phosphorothioate Invader probes. *Molecules*, **2015**, *20*, 13780-13793.
- [54] B. A. Anderson and P. J. Hrdlicka*. Synthesis and characterization of oligodeoxyribonucleotides modified with 2'-thio-2'-deoxy-2'-S-(pyren-1-yl)methyluridine. *Bioorg. Med. Chem. Lett.*, **2015**, *25*, 3999-4004.
- [53] D. C. Guenther, G. H. Anderson, S. Karmakar, B. A. Anderson, B. A. Didion, W. Guo, J. P. Versteegen and P. J. Hrdlicka*. Invader probes: Harnessing the energy of intercalation to facilitate recognition of chromosomal DNA for diagnostic applications. *Chem. Sci.*, **2015**, *6*, 5006-5015.
- [52] M. Kaura and P. J. Hrdlicka*. Locked Nucleic Acid (LNA) induced effect on hybridization and fluorescence properties of oligodeoxyribonucleotides modified with nucleobase-functionalized DNA monomers. *Org. Biomol. Chem.*, **2015**, *13*, 7236-7247.
- [51] B. A. Anderson, J. J. Onley and P. J. Hrdlicka*. Recognition of double-stranded DNA using energetically activated duplexes modified with N2'-pyrene-, perylene-, or coronene-functionalized 2'-N-methyl-2'-amino-DNA monomers. *J. Org. Chem.*, **2015**, *80*, 5395-5406 (**Featured Article**).
- [50] S. Karmakar, A. S. Madsen, D. C. Guenther, B. C. Gibbons and P. J. Hrdlicka*. Recognition of double-stranded DNA using energetically activated duplexes with interstrand zippers of 1-, 2- or 4-pyrenyl-functionalized O2'-alkylated RNA monomers. *Org. Biomol. Chem.*, **2014**, *12*, 7758-7773.
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- [48] D. C. Guenther, P. Kumar, B. A. Anderson and P. J. Hrdlicka*. C5-Amino acid functionalized LNA: Positively poised for antisense applications. *Chem. Commun.*, **2014**, *50*, 9007-9009.

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DNA/RNA. *J. Org. Chem.*, **2012**, *77*, 5-16 (Cover Article).

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