



Moses Lee

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B.S., University of Guelph, Canada, 1983
Ph.D., University of Guelph, 1986

Organic Chemistry, Synthesis, Biochemistry,
and Medicinal Chemistry

Spirogen Ltd. U.K., "Polyamide-PBD derivatives"

Arnold Beckman Foundation, "Beckman Scholar"

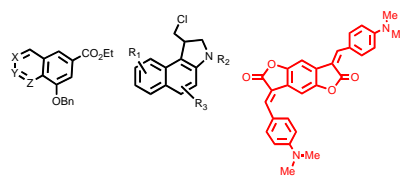
NSF, "Tuning the Thermodynamic and Kinetic Properties of the Binding of Hairpin Polyamides to Their Cognate DNA Sequences, through Incorporation of Intercalating and Threading Agents"

NIH-BRIN, "Prodrugs for Targeting Prostate Cancer"

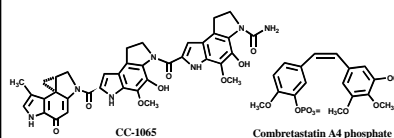
A. Sato, L. McNulty, K. Cox,* S. Kim,* A. Scott,* K. Daniell,* K. Summerville,* C. Price,* S. Hudson, K. Kiakos, J. A. Hartley, T. Asao, and M. Lee. 2005. A Novel Class of *In-vivo* Active Anticancer Agents: Achiral *Seco*-Amino and *Seco*-Hydroxycyclopropylbenz[e]indolone (*seco*-CBI) Analogs of the Duocarmycins and CC-1065, *J. Med. Chem.* **48**, 3903-3918.

K. L. Buchmueller, A. M. Staples,* C. M. Howard,* S. M. Horick,* P. B. Uthe,* N. M. Le,* K. K. Cox,* B. Nguyen, K. A.O. Pacheco, W. D. Wilson, and M. Lee. 2005, Extending the Language of DNA Molecular Recognition by Polyamides: Unexpected Influence of Imidazole and Pyrrole Arrangement on Binding Affinity and Specificity, *J. Am. Chem. Soc.* **127**, 742-750. (*Undergraduates)

Synthetic Methodology



Medicinal Chemistry - Anticancer Drugs



- Apoptosis induction
- DNA interactive
- Anti-angiogenesis
- Solid tumor
- Low toxicity
- Drug targeting (ADEPT; ETPT)

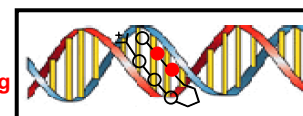


DNA Sequence Specific Recognition

Diagnostics

- Biosensors
- genetic disposition
- abnormal DNA
- Homeland security

Engineering



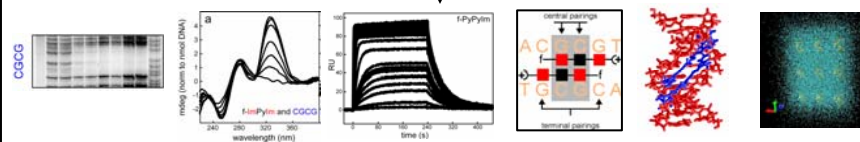
- ### Molecule-DNA Complex
- Sequence specificity
 - Structure and conformation
 - Molecular dynamics

Medicine

- Gene control
- Anticancer drugs
- resistance

Cell & animal biology

Molecular biology, biochemistry, biophysical, computational chemistry



Design, synthesis

