FENG HONG, Ph. D

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OBJECTIVE

To pursue an opportunity in drug discovery and development applying my knowledge of drug design/synthetic expertise as well as communication talent and business transaction experiences.

SUMMARY OF QUALIFICATIONS

Creative, well-organized, a strong problem solver with proven track record and more than 16 year experiences in drug discovery research. Having very good knowledge of drug discovery such as SAR, drug-like properties and pharmacokinetics. Excel in working both independently and as a team player. Highly dedicated, self-motivated, a continuous learner and good communicator.

PROFESSIONAL EXPERIENCE AND ACCOMPLISHMENTS

Acucela, **Sr. Scientist II, Medicinal Chemistry** (02/08-Present, and as **Consultant:** 05/07-02/08)

Ceptyr Inc, **Scientist II, Medicinal Chemistry** (04/04-11/04) and as **Consultant** (01/06-03/06)(03/05-07/05)

Design and synthesis of protein-tyrosine phosphatase 1B (PTP1b) inhibitors as potential therapeutic agents for treating diabetes.

- For the purpose of SAR study and with the hope of finding better PTP 1b inhibitors, a class of hetero-aromatic compounds with unique multiple functional groups were efficiently synthesized.
- Designed and synthesized a novel class of compounds as PTP 1b inhibitors.

CELL THERAPEUTICS, **Senior Scientist, Discovery Chemistry** (01/01-09/03)

Design and synthesis of LPAAT-beta inhibitors as novel anti-cancer agents. Guided by the insight of SAR, a novel class of compounds, *diamino-C,N-diaryl-pyrimidines,* were designed and synthesized. This class of the compounds (compared with existing compounds) had improved potency, enhanced anti-proliferation, better solubility and metabolic stability, stronger in-cell LPAAT-beta inhibition and promising *in vivo* activity.

- By applying the knowledge of SAR and drug-like properties, a series of *diamino-C,N-diaryl-pyrimidines* were designed and synthesized as LPAAT-*beta* inhibitors.
- Took and successfully completed the challenging synthesis of *diamino-C,N-diaryl-pyridines* (all three isomers) and *diamino-C,N-diaryl-benzenes* for SAR study and the protection of CTI's intellectual property.
- Design and synthesis of *diamino-C,N-diaryl-triazines, aryl-bezoxazoles* and *aryl-benzothiozoles* as LPAAT-*beta* inhibitors aimed at achieving improved drug-like properties.
- Finished the synthesis of a novel polyglutamate(PG)-conjugated anti-cancer entity.

UNIVERSITY OF WASHINGTON, **Senior Research Fellow, Biomolecular Structure Center** (11/98-1/01)

Design and synthesis of novel *dihydrofolate reductase* (DHFR) inhibitors and heat-labile enterotoxin and cholera toxin receptors.

- Design and synthesis of novel *dihydrofolate reductase* (DHFR) inhibitors as potential therapeutics for treating *tuberculosis* (TB).
- Devised a novel strategy for solution phase synthesis of water-soluble galactose derivatives library as heat-labile enterotoxin and cholera toxin receptors.
- Performed solid phase synthesis of galactose-containing peptides library as heat-labile enterotoxin and cholera toxin receptors.
- Synthesis of *thio-guanosine* for X-ray crystal structural elucidation of the binding pattern between human *topoisomerase-I* and *camptothecin*.

MAYO CLINIC, **Research Fellow, Research Department** (11/95-10/98)

Design and synthesis of non-peptidic *Neurotensin(8-13), ($Arg^8Arg^9Pro^{10}Tyr^{11}Ile^{12}Leu^{13}$),* analogs and *acetylcholinesterase* inhibitors.

- Designed and synthesized *bis-guanidinoalkyl/bis-aminoalkyl substituted indoles, pyrroles* and *quinolines* as non-peptidic mimetics of neurotensin(8-13).
- Developed several convenient methods for the synthesis of alkylene-linked *bis-tacrines* and *bis-pyridiniumaldoximes* as acetylcholinesterase inhibitors.
- Synthesis of *neo-tryptophan* for incorporating into neurotensin analogs with improved potency and stability.

NEW YORK UNIVERSITY, Postdoctoral Fellow, Department of Chemistry (06/94-10/95)

- Discovered a novel method for the selective and high yield preparation of *alpha-and beta-glycosides* using glycosyl phosphorimidates as glycosyl donors.

SKILLS

Familiar with using various instruments including NMR (Bruker, Varian), LC-MS, HPLC, IR etc.

EDUCATION

Ph. D., The Chinese Academy of Sciences, Shanghai Institute of Organic Chemistry (07/90-06/93).

M. Sc., The Chinese Academy of Sciences, Shanghai Institute of Organic Chemistry (09/87-06/90).

B. Sc., Department of Chemistry, Sichuan University, Chengdu, China (09/83-07/87).

HONORS

LPAAT-beta team award (CTI, 2003); First Prize Scholarship (SIOC, 1993); Outstanding College Graduate (Sichuan University, 1987); Grand Prize Scholarship (Sichuan University, 1986); Grand Prize Scholarship (Sichuan University, 1985); First Prize Scholarship (Sichuan University, 1984).

PUBLICATIONS AND PATENTS

26 publications in peer-reviewed journals (please see attached sheet) and nine published/pending patents.

LANGUAGES: Fluent reading, speaking, and writing in both *English* and *Chinese*.

REFERENCES: Available upon request.

SELECTED PUBLICATIONS

1. "Synthesis of Three Isomers of Diamino-C,N-Diaryl-Pyridines" **F. Hong**, D. Hollenback , J. Singer and P. Klein *Bioorg. & Med. Chem.,* **2005**, *15*, 4703
2. "Synthesis, SAR and Antitumor Properties of Diamino-*C,N*-Diaryl-Pyrimidine Positional Isomers: Inhibitors of Lysophosphatidic Acid Acyltransferase-beta" B. Gong, **F. Hong**, C. Kohm, J. Tulensky, R. Bhatt, P. DeVry, S. Jenkins and P. Klein *Bioorg. & Med. Chem.,* **2004**, *14*, 2303.
3. "Synthesis and SAR of 2-Aryl-Benzoxazoles, -Benzothiazoles and -Benzimidazoles as Inhibitors of Lysophosphatidic Acid Acyltransferase-beta" B. Gong, **F. Hong**, C. Kohm, L. Bonham and P. Klein *Bioorg. & Med. Chem. Lett.,* **2004**, *14*, 1455.
4. "Rational design of alkylene-linked bis-pyridiniumaldoximes as improved acetylcholinesterase reactivators" Y. P. Pang, T. M. Kollmeyer, **F. Hong**, J. C. Lee, P. I. Hammond, S. P. Haugabouk and S. Brimijoin *Chem. Biol.,* **2003**, *10*, 491.
5. "Synthesis and biological studies of novel neurotensin(8-13) mimetics" **F. Hong**, J. Zaidi, B. Cusack and E. Richelson *Bioorg. & Med. Chem.,* **2002**, *10*, 3849.
6. "A Convenient Approach for the Solution Phase Synthesis of Water-Soluble Galactose Derivatives Library" **F. Hong** and E. Fan, *Tetrahedron Lett.,* **2001**, *42*, 6073.
7. "Using a Galactose Library for Exploration of Novel, Hydrophobic Pocket in the Receptor Binding Site of the *E. coli* Heat-Labile Enterotoxin" W. E. Minke, **F. Hong**, C. L. M. Verlinde, W. G. J. Hol and E. Fan *J. Biol. Chem*., **1999**, *274*, 33469.
8. "Synthesis of (S)-2-Amino-3-(1H-4-indol-4-yl)-propionic Acid, a Novel Tryptophan Analogue for Structural Modification of Bioactive Peptides" A. Fauq, **F. Hong**, Y. P. Pang and E. Richelson, *Tetrahedron Asymmetry*, **1998**, *9*, 4127.
9. "Peptidic and Non-peptidic Neurotensin Analogs" **F. Hong**, B. Cusack, A. Fauq and E. Richelson, *Current Medicinal Chemistry*, **1997**, *4*, 421.
10. "Design, Synthesis, and Pharmacological Evaluation of Active Pyrrole-based, Nonpeptidic Analogs of Neurotensin(8-13)" **F. Hong**, J. Zaidi, Y.-P. Pang, B. Cusack and E. Richelson*, J. Chem. Soc. Perkin Trans 1*. **1997**, 2997.
11. "Glycosyl Donors with Phosphorimidate Leaving Groups for Either α- or β-Glycosidation" S. Pan, H. Li, **F. Hong**, B. Yu and K. Zhao, *Tetrahedron Lett*., **1997**, *38*, 6139.
12. "Design, Synthesis, and Pharmacological Test of a Quinoline-based Nonpeptidic Analog of Neurotensin(8-13)" **F. Hong**, Y.-P. Pang, B. Cusack, and E. Richelson *J. Chem. Soc. Perkin Trans 1*. **1997**, 2083.
13. "Synthesis of Alkylene Linked Bis-THA and Alkylene Linked Benzyl-THA as Highly Potent and Selective Inhibitors and Molecular Probes of Acetylcholinesterase" Y.-P. Pang, **F. Hong**, P. Quiram, T. Jelacic, and S. Brimijoin *J. Chem. Soc. Perkin Trans 1*, **1997**, 171.
14. "α-Trifluoromethyl-Substituted β-Ethoxyl Zinc Reagent: Preparation and Palladium-Catalyzed Cross-Coupling as a Novel Route to Functionalized CF_3-Containing Compounds" G. Shi, X. Huang and **F. Hong** *J. Org. Chem*., **1996**, *61*, 3200.
15. "A Novel and Convenient Method for the Synthesis of (Z)-3,3,3-Trifluoropropenyl Alkyl Ethers and CF_3-Substituted Acetals as Versatile CF_3-Containing Building Blocks" **F. Hong** and C. Hu *J. Chem. Soc. Chem. Commun*., **1996**, 57.
16. "Zinc Promoted Barbier-type Reaction of 2-Bromo-3,3,3-trifluoropropene with Aldehydes" **F. Hong**, X. Tang and C. Hu *J. Chem. Soc. Chem. Commun*., **1994**, 289.
17. "Palladium-catalyzed Carbocyclization Reaction of Organophosphorus Compounds---A Novel and Effective Method for the Synthesis of Cyclic Organophosphorus Compounds Including the Phosphorus Analogs of α-methylenelactones" **F. Hong**, J. Xia and Y. Xu *J. Chem. Soc. Perkin Trans. 1*, **1994**, *13*, 1665.