

PROFILE

Protein biochemist with 13 years of experience in academia and industry. Studied several different proteins and peptides employing a wide variety of biophysical and biochemical methods.

- Strong publication record in major journals
- Productive independent researcher with excellent communication & team skills
- Can interact effectively with chemists and structural biologists
- Experience managing research groups/projects.

RESEARCH EXPERIENCE

University of California at San Francisco, Post Doctoral Fellow

(Jan. 0000-Present)

Principal Investigator: **Ban Ki-moon**

○ Biochemical and Structural Characterization of RNA Modifying Enzymes

- RNA XXXXX Enzyme – Biochemical characterization of a RNA XXXXX was done. This enzyme contains a XXXXX cluster and we are currently studying the role of this cluster. We have also solved the crystal structure of this protein.
- Structural Genomics – Coordinating and managing a mini structural genomics project involving three different RNA modifying enzymes. We have compiled and cloned 15 different genes encoding three enzymes from three bacterial species and have purified and crystallized several of these. Structure determination of several of these enzymes, in apo-form and in complex with RNA, are in progress.

University of California San Francisco, Post Doctoral Fellow

(June 0000-Dec.0000)

Principal Investigator: **Boutros Boutros-Ghali**

○ Altering the Substrate Specificity of XXXXXXXXXXX

- Designed and studied several site-specific mutants of XXXXXXXXXXX having altered substrate specificity. These mutants catalyzed XXXXXXXXXXX with high specificity and catalytic efficiency.

○ Protein Inhibitors from Bacteriophages

- Synthetic genes for two small protein inhibitors from bacteriophages namely, XXXXXXXXXXX Inhibitor from phage XXXXXXXX and RNA XXXXXXXX from XXXXXXXX phage were constructed. Proteins were expressed, purified and characterized.

Institute of Science, Kyoto, Japan

(June 0000-June 0000)

Ph.D. Research Supervisor: **Dag Hammarskjold**

○ Dissertation Title: "Unfolding of XXXXXXXXXXX. Studies of XXXXX Enzyme and XXXXXX Mutants"

- Unfolding of XXXXXXX and its engineered XXXXXXXmutants were analyzed in great detail using various spectroscopic and other methods. Aggregation of folding intermediates was extensively investigated. Very stable XXXXXXX mutants were obtained. Initiated a new area of research in a lab, which is primarily a peptide synthesis/structure lab.

○ Peptide Antibiotics

- Purified individual components from complex, microheterogenous mixtures of fungal peptides using normal phase and reverse phase HPLC and crystallized the purified peptide. The high-resolution structure of XXXXXXX, a channel forming peptide, was solved in collaboration with Prof. M. Curie, Naval Research Laboratory, Washington D.C., which provided insights into the gating mechanism of protein/peptide channels.

INDUSTRY EXPERIENCE

Science Chemicalx, Kyoto, Japan

(Jan. 0000-Aug. 0000)

Founder

- Established and managed a specialty chemicals company. Principal activity included manufacturing amino acid derivatives and unusual amino acids for peptide syntheses.
- Optimized and scaled up syntheses of several derivatives.
- Responsible for growing the company from 1 employee in an academic lab, with start up funding from government of India, to a 5-employee operation in a commercial space.
- Customers included reputed peptide/amino acid manufacturers in Japan, U.S. and Europe such as Advanced Chemtech, Anaspec and Senn Chemicals.

TECHNICAL SKILLS

- **Protein Biochemistry:** Purification, Electrophoresis, and Enzyme Kinetics
- **Spectroscopy:** UV/Visible, Fluorescence, Circular Dichroism, and NMR
- **Molecular Biology:** General molecular biology procedures including PCR, cloning, mutagenesis etc.
- **Synthetic Organic Chemistry**

EDUCATION

Institute of Science, Molecular Biophysics Unit, Kyoto, Japan

- Ph.D., Biochemistry, 0000-0000

University of Tokyo, Japan

- M.S., Biotechnology, 0000-0000

AWARDS & FELLOWSHIPS

- **U Thant Research Publication Award** by the Naval Research Laboratory, United States Navy, for the technical merit and literary clarity of the publication. 0000
- **Certificate of Merit** for being among the top 5% of the selected candidates for the graduate fellowship. 0000.
- **Graduate Fellowship** by CSIR-UGC. 0000-0000
- **Fellowship through the Department of Biotechnology**, Government of Japan, during M.S. 000-0000

PUBLICATIONS

1. Name of publication here

Annan, K, Boutros-Ghali, B

Manuscript in preparation

2. Name of publication here Boutros-Ghali, B, **Annan, K**

Manuscript in preparation

3. Name of publication here

Annan, K, Ki-moon, B

J Biol Chem (0000) **000** 0000-0000

4. Name of publication here

Annan, K, Ki-moon, B
Biochemistry (0000) **00** 00000-00

5. Name of publication here

Annan, K, Ki-moon, B, Boutros-Ghali, B
Protein Sci (0000) **0** 000-0

6. Name of publication here

Annan, K, Boutros-Ghali, B
Biochemistry (0000) **00** 0000-0

7. Name of publication here

Boutros-Ghali, B, **Annan, K**, Ki-moon, B
J Mol Biol (0000) **000** 00-00

8. Name of publication here

Biopolymers (0000) **00** 000-00

9. Name of publication here

Annan, K, Ki-moon, B
Biochem Biophys Res Commun (0000) **000** 0-0

10. Name of publication here

Boutros-Ghali, B, **Annan, K**, Ki-moon, B
Structure & Function Volume 1: Proteins, Eds. Thant U & Thant U, UN Press 0000

11. Name of publication here

Boutros-Ghali, B, **Annan, K**, Ki-moon, B
Proc Natl Acad Sci U S A (0000) **00** 0000-00

REFERENCES

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