CHED Project Title:

Faculty Upgrading for Chemistry in Higher Education (FUCHE)

7th Revup: Faculty Upgrading in Molecular Biochemistry by PSBMB

Proposed date: **M-F, October 22-26, 2007**
Participants: **24 participants**: Tertiary teachers teaching biochemistry in 24 Philippine institutions offering BS Chemistry

Project Implementation: Five short training courses & CHED Partner Organization in PFCS:

Course 1. Quantum Chemistry: Kapisanan ng Kimika sa Pilipinas (KKP)
Course 2. Organic Spectroscopy: Organic Chem Teachers' Assoc (OCTA)
Course 3. Analytical Chemistry: KKP- Div of Anal Chem (KKP-DAS)
Course 4*. Molecular Biochemistry: Phil Soc Biochem & Molec Biology (PSBMB)*
Course 5. Inorganic Chemistry: KKP- Div of Inorg Chem (KKP-DICAF)

Training course components: Lectures & lab hands-on exercises

Project Objectives:

1. To upgrade the teaching of major chemistry courses in the BS Chem program
2. To share best practices in teaching chem courses, both in lec and lab, modern instrumentation & lab techniques
3. For CHED to partner with chemistry professional societies in improving curriculum

Overview of subject area: **(www.acs.org) Voet & Voet, Biochem Educ Session 21. 20th IUBMB Intl congress Biochem & Molec Biol & FAOBMB Congress, 18-23 Jun 2006**

Biochemistry covers the molecules of biological systems and their reactions and interactions. In practice, the subject area covers the structure, function, energetics, and interactions of the four major classes of molecules (nucleic acids, proteins, carbohydrates and lipids) and the biological systems involving these. The area also covers the techniques for their identification, isolation, analysis and manipulation.

Course Objectives: The course in Molecular Biochemistry seeks to

1. Provide students with strong fundamentals in biochemistry and molecular biology
2. Provide students with basic skills necessary to conduct undergrad research in biochemistry
3. Expose the students to recent findings and key trends in the field.
4. Integrate student's knowledge in biochemistry with other chemistry subject areas (Organic, Inorganic, Physical, Life sciences, Environmental and Natural Products Chemistry)
5. Develop an appreciation of interdisciplinary nature of biochemistry
6. Develop ethical perspective in the principles and practice of biochemistry
7. Convey the excitement of this fast-moving area