

## The QB3-Malaysia Postgraduate and Postdoctoral Training Program

### Accelerating Natural Product Based Drug Discovery for Neglected Diseases.

#### Introduction

The term neglected diseases refers to all human diseases in which there is little or no commercial interest. Western pharmaceutical and diagnostic companies believe that they cannot recover an income from those diseases commensurate with the development costs. In practice, neglected diseases predominantly affect the populations in the developing world. We foresee that diseases neglected by the west can become commercially viable targets for emerging economies like Malaysia, if they can deploy a less expensive but technically sophisticated work force to do development at a cost that moves many diseases out of the neglected category. This is especially the case if the drugs are developed through exploiting Natural Products from Malaysia. With this vision in mind, the Malaysian Institute of Pharmaceuticals and Nutraceuticals (iPharm) has entered into a partnership with the California Institute for Quantitative Biosciences (QB3) to start an exciting new training program to train outstanding Malaysian researchers who will both help developing nations and create biotechnology jobs for Malaysians.

#### Purpose

Our purpose is to train scientists who eventually will conduct research in Malaysia and be leaders in the field of developing drugs for neglected diseases. By combining this skill set with the biodiversity of Malaysian flora and fauna, as well as with a history of traditional medicine, our goal is to bring new medicines against neglected diseases. During the course of the program, the trainees will conduct research projects with QB3 faculty and participate in courses, seminars and symposia at UCSF. A common criticism of sending Malaysians abroad for access to sophisticated and cutting-edge training is that they cannot return to an intellectual environment equivalent to the one they left. This program is fundamentally different. All the students in this program go to the same institution, QB3, where they will form networks with each other as well as QB3 scientists. After training, all the students will return as staff to the same institution, the new iPharm. In this way the trainees should be able to take back home with them the culture they have been exposed to. That culture, QB3, emphasizes awareness of the problems of the developing world and at the same time the need to solve those problems through entrepreneurship and commercialization, rather than relying exclusively on philanthropy.

#### What does the program provide?

The Ph.D. student support is renewable for up to three years (upon a showing of satisfactory progress toward receipt of the Ph.D. degree). Ph.D students will be registered at USM and will have a thesis advisor from USM, while conducting research under a research mentor in QB3.

Postdoctoral fellows will also be supported for up to three years. The support will include:

- Monthly personal stipend
- Research supplies and laboratory support
- Participate and present in annual evaluation symposium at UCSF or Malaysia
- Travel support to conferences
- Health insurance

Assistance will be provided with visas, in finding housing and in networking with biotechnological experts and entrepreneurs in the San Francisco Bay Area.

QB3 Faculty Mentor: Each student will be matched with a QB3 Faculty Mentor, who will serve as the student's primary research advisor.

### **What is the Malaysian Institute for Pharmaceuticals and Nutraceuticals (iPharm)?**

iPharm is one of the newly established key institutes that will drive the healthcare biotechnology initiatives under the Malaysian Biotechnology Policy. The role of the institute is to jump-start and sustain the global competitiveness of the Malaysian biopharmaceutical and nutraceutical industries.

### **Eligibility**

#### **Who can apply?**

Candidates can apply for the postgraduate (Ph.D.)-level training program or the postdoctoral training program. Candidates must be Malaysian nationals or permanent residents and be committed to returning to Malaysia after the training period is over. Candidates must have a strong commitment to translational research and to the advancement of Biotechnology in Malaysia.

Candidates for the Ph.D.-level training program should hold an undergraduate/ bachelor's degree or a M.Sc in biological sciences, engineering, computer sciences, biochemistry, biophysics, biotechnology, medicine or related disciplines. The Ph.D. students will not get their degrees from QB3 but from Universiti Sains Malaysia (USM). The thesis defense will occur in Malaysia but be attended by the QB3 mentor.

Candidates for the postdoctoral program should have a Ph.D. or M.D. in the disciplines described above.

#### **How will candidates be selected?**

We are looking for candidates who have:  
Potential for excellence and entrepreneurship in their research careers



Commitment to translational research in emerging and neglected diseases  
Commitment to the advancement of science in Malaysia

## **Application Process**

### **How to apply**

Please submit the following materials (only PDF documents, Microsoft Word documents, or faxes are acceptable):

Cover letter

Full Curriculum Vitae

Application form (including contact details for 3 references, 1-2 page research and career goals statement)

Application deadline is May 15, 2009

All application materials must be e-mailed or faxed to:

[Agnes.Buenaventura@ucsf.edu](mailto:Agnes.Buenaventura@ucsf.edu)

Fax number: +415-514-4661