### Speakers & Instructors:

1. Jean – Marc Cavaillon, Ph.D.	Prof. of Immunology, Institut Pasteur		
2. Sophie Dulauroy	Research assistant, Institut Pasteur		
3. Sylvie Garcia, Ph.D.	Scientist, Institut Pasteur		
4. Adrien Six, Ph.D.	Assist. Prof. of Immunology,		
	Institut Pasteur and Universite' Paris 6		
5. Vichai Reutrakul, Ph.D.	Prof. of Chemistry, Mahidol University		
6. Viraphong Lulitanond, Ph.D.	Assoc. Prof. of Microbiology,		
	Khon Kaen University (KKU)		
7. Pisamai Laupattarakasem, Ph.D.	Assoc. Prof. of Pharmacology, KKU.		
8. Chanvit Leelayuwat, Ph.D.	Assoc. Prof. of Immunology, KKU.		
9. Ganjana Lertmemongkolchai, Ph.D	Assoc. Prof. of Immunology, KKU		
10. Chariya Hahnvajanawong, Ph.D	Assist. Prof. of Microbiology, KKU.		

#### Participants: 80 for Lecture and 30 for Workshop Participants will be admitted on the basis of first come first serve.

#### **Registration** fee

Participants	Lecture July 17-18		Workshop July 19-22		Lecture & Workshop July 17-22	
	Before	After	Before	After	Before	After
Oversea	80US\$	100US\$	150US\$	200US\$	200US\$	250US\$
Local	2000Bt	2500Bt	4000Bt	4500Bt	5000Bt	6000Bt
Graduate	1200Bt	1500Bt	2500Bt	3000Bt	3000Bt	3500Bt

- Coffee/tea, lunch, reception dinner are included in participant's registration fee. **The last day of registration : June 30, 2006.** 

#### Registration Contact: Assist.Prof.Dr.Sorujsiri Chareonsudjai

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For more information, please visit : www.kku.ac.th



The KKU International Teaching Platform (KKU-ITP) on Effect of Natural Products on Cancer Cell and Cytokine Production Jointly organized by Khon Kaen University Université Pierre et Marie Curie-Paris 6 & Institut Pasteur July 17-22, 2006 At The Department of Microbiology, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand



The Teaching Platform will focus on the understanding of natural immunity ; effect of natural products on immune system, infectious diseases and cancer ; apoptosis and techniques for detection of cytokines and apoptosis. The practical class will offer participants with the techniques for detection of apoptotic cell and cell cycle analysis by flow cytometry. and detection of apoptotic gene expression by real time RT-PCR. Data analysis and interpretation from the practical will be discussed after the laboratory performance in the workshop.

#### The KKU ITP Workshop (Tentative Program) Effect of Natural Products on Cancer Cell and Cytokine Production Lecture

### Day 1: July 17, 2006

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08.30-08.45	Registration
08.45-09.00	Opening
09.00-10.00	Natural immunity
	Regulation of cytokines
10.00-10.15	Coffee break
10.15-12.00	Immunoregulatory effect of natural products
12.00-13.00	Lunch
13.00-14.30	Natural products and infectious diseases
14.30-14.45	Coffee break
14.45-16.30	Techniques for detection of cytokines
18.30-20.30	Reception dinner

## Day 2: July 18, 2006

08.30-10.00	Cancer and natural products
10.00-10.15	Coffee break
10.15-12.00	Apoptosis - generalities
12.00-13.00	Lunch
13.00-14.30	Apoptosis in the immune system
14.30-14.45	Coffee break
14.45-16.30	Techniques for detection of apoptosis

# Laboratory workshop

## Day 3: July 19, 2006

08.30-10.00	Introduction to the workshop
	- Detection of apoptotic cell and cell cycle
	analysis by flow cytometry
	- Detection of apoptotic gene expression
	by real time RT-PCR
10.00-11.30	Coffee break
10.30-12.00	Detection of apoptotic cell and cell cycle by
	flow cytometry
	Practical cell handling and culture techniques
	- counting cells
12.00-13.00	Lunch
13.00-15.00	CFSE staining and put in culture (Flow cytometry)
15.00-15.15	Coffee break
15.15-16.30	Detection of apoptotic gene expression by realtime

15-16.30 Detection of apoptotic gene expression by realtime RT-PCR , and practice on mRNA isolation and RT-PCR

### Day 4: July 20, 2006

08.30-10.00	Brief review of yesterday and today experiments
	Performing real time PCR
10.00-10.30	Coffee break
10.30-12.00	Real time PCR (cont.)
12.00-13.00	Lunch
13.00-15.00	Detection of apoptotic cell by flow cytometry (cont.)
	Staining cell with 7AAD
15.00-15.15	Coffee break
15.15-16.30	Staining cell with 7AAD (cont.)

# Day 5: July 21, 2006

- 08.30-09.30 CFSE fixation 09.30-10.00 *Coffee break*
- 10.00-12.00 FACS acquisition
- 12.00-13.00 Lunch
- 13.00-16.30 Real time RT-PCR Interpretation of real time RT-PCR Combine data interpretation

# Day 6: July 22, 2006

- 08.30-10.00 Presentation of data from individual group Summary discussion of overall experiments
- 10.00-10.30 Coffee break
- 10.30-12.00 Presentation and discussion (cont.)
- 12.00-13.00 Lunch
- 13.00-16.30 Discussion on potential research collaboration Question & answers with coffee break in between