## INSTITUTE OF TROPICAL FORESTRY AND FOREST PRODUCTS (INTROP), UNIVERSITI PUTRA MALAYSIA

#### presents PUBLIC TALK

#### "THE CHALLENGE OF APPLYING THE MULTIPLE-PRODUCTS BIOREFINERY CONCEPT"

BY

#### **Dr. Daniel PIOCH**

Senior Researcher, CIRAD - France (French Agricultural Research Centre for International Development)

**Dr. Daniel PIOCH**, a graduated Chemical Engineer, earned a PhD in Physical Organic Chemistry (1980). He was then a postdoctoral fellow at Northwestern University, Chicago. He joined CIRAD in 1982 where he set several research teams (processing of oils and fats, biofuels), he is currently Senior Researcher for developing biorefinery processes. CIRAD is the French agricultural research and international cooperation organization working for the sustainable development of tropical and Mediterranean regions.

His main research topics deal with environmental friendly processes:

(i) synthesis of new components for detergents, lubricants and biofuels through heterogeneous catalysis, (ii) extraction-refining of lipids, latex and other natural products through membrane filtration technology and supercritical fluids.

He co-authored 80+ papers in international peerreviewed journals, 80 communications, 7 patents, cofounded scientific associations (Euro Fed Lipids; Industrial oil products Division of the American Oil Chemists Society, he served as Secretary) and an expert in several scientific organizations (France, EU, Brazil).

#### WHEN AND WHERE?

Date: Friday, 3 November 2017 Time: 9.45am – 11.00am

Venue : Meeting Room (Ground floor),

Institute of Tropical Forestry and Forest Products

(INTROP)

Universiti Putra Malaysia

#### **PROGRAMME DETAILS:**

9.45 am : Registration and Networking

10.00 am: Welcoming Remarks by Assoc. Prof. Dr.

Hidayah Ariffin

10.10 am : Public Talk: The challenge of applying the

multiple-products biorefinery concept,

by Dr. Daniel Pioch

: Q & A

11.00 am : End Session



The Challenge Of Applying The Multiple-Products Biorefinery Concept

After having extracted a valuable product like a vegetable oil or a bioactive compound, still remains the question-and often the problemabout what to do with the remaining solid (cake, bagasse, etc.) making the main part of harvested biomass. Even more, the economic viability of most crops -if not all- is based on the valorization of only one product. This way does not help to better exploit the biodiversity. Indeed only a small number of vegetal species are used at large scale. By optimizing the valorization of several products among the many components of a given biomass, instead of only one, the multipleproduct biorefinery can bring useful options to better valorize existing crops and to set new crops and associated production chains. Based on his results obtained from various trees and crops, the author shares his 30 years expertise and the evolution of research topics from oleochemistry (low temperature refining of oils through UF-MF processes, heterogeneous catalysis for functionalizing oleochemicals like biofuels and bio-surfactants/lubricants, antiinsect), to the biorefinery. This last field brings of course additional problems to be solved, from accessing to a 3D chemical composition of biomass and to set-up intensified efficient and green processes.

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#### INVITATION to a PUBLIC TALK

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by
Dr. Daniel PIOCH
Senior Researcher
CIRAD - France
(French Agricultural Research Centre for International Development)

3 November 2017 (Friday)
Meeting Room (Ground Floor)
Institute of Tropical Forestry and Forest Products (INTROP)
Universiti Putra Malaysia

Please register the following participant/s for the Public Talk:

No.	Name	Designation / Department	Email or Mobile No.
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PLEASE FAX THE REPLY SLIP TO INTROP AT 03-8947 1896

or email to: azizahharon@gmail.com on or before 1st November 2017