

The 2nd ICOLIB

International Conference on Life Sciences and Biotechnology

Biology Department, Faculty of Mathematics and Natural Sciences, University of Jember
(ICOLIB BIO-UNEJ 2017)

Integrated Biological Sciences for Human Welfare



UNIVERSITAS JEMBE

ABSTRACT BOOK

The Panorama Hotel and Resort Jember
East Java, Indonesia
August 7 - 8, 2017



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The International Conference of Life Science and Biotechnology (ICOLIB) was organised by Biology department Faculty Mathematic and Basic Sciences, The University of Jember, Indonesia. This conference has been held biannually at different venues. The last one, (First ICOLIB) held in Aston Hotel Jember 2015, Indonesia. Now, we are held the 2nd ICOLIB at Panorama Hotel and Resort Jember, Indonesia. The ICOLIB is a forum for students, researchers, educators, observers and practitioners from university, research institutions, industry and general public, policy maker to exchange ideas and latest information in the field of life science and its application. The theme of the 2nd ICOLIB 2017 'Integrated Biological Sciences for Human Welfare' will underpin the need for collaboration and cooperation of individuals from a wide range of professional backgrounds. The scope of the 2nd ICOLIB covers several fields of studies, namely life sciences, environmental sciences, medical and pharmaceutical sciences, science of renewable energy, agricultural science and food security. This conference will also offer opportunities for discussion and sharing as well as encouraging for international research collaboration. Furthermore, the scientific articles will be peer-reviewed and published in Serial book volume publish with Cambridge Scholar Publishing UK. The selected scientific articles in the 2nd ICOLIB will be further reviewed and will also be published in Scopus-indexed Journal.

The 2nd ICOLIB have been fortunate to have Prof. Harald zur Hausen, 2008 Nobel Laureate in Physiology or Medicine for his discovery of human papilloma viruses causing cervical cancer. Prof. zurHausen and his team has made a breakthrough in 1982 and 1983 when they were able to isolate HPV 16 and HPV 18 as the virus types responsible for cervical cancer. Based on these findings, vaccines have been developed against cervical cancer, one of the most common forms of cancer among women. This work led to improved methods for predicting which women are in the risk zone. We are very honoured to present Prof. Harald zur Hausen, as a keynote speaker, and 6 distinguished scientists as invited speakers.

I sincerely hope that the results of this conference will enable all participating scientists from all over the world to have the opportunity to exchange knowledge through lectures and posters.

Purwatiningsih

Chairwoman of The 2nd ICOLIB 2017

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General Information for the Participant

Registration Information

Conference Venue

- The venue for the conference is the Panorama Hotel, Jember, East Java, Indonesia

Registration

- Registration includes:
 - 2ndICOLIB Abstract Book
 - ID Card
 - Document Bag
 - Refreshment (coffee & tea) during the conference day
 - Buffet Lunch

ID Card

- Participants are requested to display their ID Card during the conference for entry to scientific sessions, melas and the wellcome reseption. Please also show the ID Card to committee before transportation to the conference venue.

Instruction for the Moderator

- Please ensure that the sessions and speaker presentations are kept strictly on time

Instruction for Speakers (Keynote Speaker and Oral Presenter)

- Speaker are requested to submit their presentation to staff in the audio-visual room at the least 1 hours before each presentation, then upload and ensure that the proper presentation is in the computer provided
- 45 minutes have been allocated for each keynote speakers (please allow time within this period for answering the questions)
- Free oral presenter will last 10 minutes only (please allow time within this period for answering questions)
- Please be aware that the above times must be strictly adhered to

Instructions for Poster Presenter

- Poster presentations will be located in the front of the conference space along the second floor.
- Poster will be display throughout the conference, and presenters are responsible for putting them and removing them.

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SCIENTIFIC PROGRAM

MONDAY, 7TH AUGUST 2017

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07.30-08.00	Registration	
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09.10-09.20	Token of Appreciation	
09.20-09.30	Group Photo Session	
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EFFECT OF PRE-TREATMENT EXTRACTION BY DIFFERENT ACID AT SOME CONCENTRATIONS ON YIELD AND CHEMICAL CHARACTERISTICS OF GIANT FEATHERBACK FISH (*Chitalalopis*) GELATIN

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Abstract

Flesh of giant featherbackfish is the main composition of *amplang*, a kind of typical cracker from Samarindacity, East Kalimantan, while its skin and bone are not optimally used yet. They are so far used as animal fed. Like bone material in general, giant featherback fishbone is expected as potential gelatin source. However, raw material and extraction method are affected on yield and characteristic of gelatin produced. Pre-treatment extraction of gelatin from giant featherbackbones by soaking in acid solutions at different concentrations has been conducted. The soaked bones collected and neutralized by diluted NaOH, then washed by water. The ossein then boiled in water (1:4) at 80°C. After 6 h, the filtrate cooled at 4°C until gel is formed, then dried at 70°C overnight as gelatin powder. Single factor experiment (soaking giant featherback fish bone in HCl, H₂SO₄, and CH₃COOH solutions, each at 4, 7, 10%, for 48 h at room temperature) arranged in completely randomized design with three replications was applied in this study. Data were analyzed by Anova followed by Tukey test. Parameters observed were yield, as well as water, ash, and protein content. The results showed that the pre-treatment extraction methods gave significant difference ($p < 0.01$) for all parameters. Gelatin pre-treatment extraction of giant featherback fish bone by soaking in HCl 4% at room temperature for 48 h showed the highest gelatin yield (17.26%) with water, ash, and protein content of 8.54, 1.88, and 85.99 % respectively.

Keywords: gelatin, giant featherback, amplang, pre-treatment extraction, HCl, H_2SO_4 , CH_3COOH

PHYLOGENETIC ANALYSIS OF A NOVEL COMAMONAS SPECIES ISOLATED FORM PREPUTIAL OF ACEH CATTLES IN INDRAPURIDISTRICT, INDONESIA

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Abstract

The aim of this study was to analyze the phylogenetic of Comamonas sp. nov. isolated from preputial samples of aceh cattles based on 16S rRNA gene sequencing. Preputial specimens were processed according to standart protocols. A novel Gramnegative was isolated from preputial samples of aceh cattles. Taxonomic position was investigated on the basis 16S rRNA gene sequencing. The results showed that most bands close relationship to Comamonas sp. nov. with sequence C. kerstesii strain LMG 3475 (94% similarity), C. jiangduensis strain YW1 (93%), C. terrigena strain NBRC 12685 (92%), C. terrigena strain DSM 7099 (92%), C. terrigena strain LMG 1253 (92%), C. aquatica strain LMG 2370 (92%), and C. terrigena strain IMI 359870 (92%) from Comamonadaceae group available on GenBank. On the basis of phylogenetic data that the isolate represent a novel species in the genus Comamonas. Out of 75 preputial samples analyzed 5 isolates of Comamonas sp. nov. were confirm on the basis of 16S rRNA gene sequencing, giving a prevalence rate of 6.67%. Under the conditions of the current study, Comamonas sp. nov. were prevalent in aceh cattle population although in small numbers.

Keywords: phylogenetic, *Comamonas*, prepuce, sheep cattle

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