TAYLOR'S UNIVERSITY

Wisdom • Integrity • Excellence

RISE WITH THE BEST™

Taylor's Digital Prospectus

Bachelor in Biotechnology (Hons)

TAYLOR'S UNIVERSITY

YOUR PORTAL TO THE FUTURE

Since its inception, Taylor's has continuously provided excellent services for its students in terms of diverse study options, relevant curriculum and teaching methods, ongoing partnerships with leading universities worldwide, strong industry linkages, up-to-date facilities and well-equipped campuses. Taylor's University offers a myriad of courses in tertiary education, from diploma, to degree, post-graduate and professional programmes. Students can choose to enroll in courses encompassing fields such as Medicine, Pharmacy, Biosciences, Architecture, Computer Science, Engineering, Quantity Surveying, Law, Business, Communications, Design, Psychology, Hospitality, Tourism and Culinary Arts.

The quality of the undergraduate teaching and learning at Taylor's was acknowledged when it garnered a 'Tier 5: Excellent' rating in the Rating System for Malaysian Higher Education (SETARA) by the Ministry of Higher Education Malaysia in all four audit exercises. Taylor's University is ranked at no. 4 in the World in the graduate employment rate indicator under the QS Graduate Employability Rankings 2019; ranked at no. 135 in Asia in the QS Asia University Rankings 2019, and listed in the top 1 percent of universities in Asia. Taylor's University was also awarded 5-Star rating in five (5) categories of the QS Stars Rating. Taylor's University was also recognised as the number 14 university in the world for Hospitality & Leisure Management by QS World University Rankings by Subject 2019. Taylor's was listed in the top 2% universities in the world by QS World University Rankings. These achievements are important milestones for Taylor's, in line with its aim of becoming one of Asia's leading universities.

Taylor's has received numerous recognitions locally and internationally from professional bodies such as the CDIO Initiative (Conceiving, Designing, Implementing, Operating), National Academy of Engineering in the USA and the Royal Institution of Chartered Surveyors (RICS) to name a few.

Taylor's continues to play a strong role in developing Malaysia's human resource capital, and boasts a 100,000-strong alumnus, many of whom have become leaders in their respective fields.

VICE CHANCELLOR & PRESIDENT'S MESSAGE

Taylor's University is a world-class international university which aims to future-proof its students with unconventional, innovative and cutting-edge learning facilities and frameworks to be ready for the Fourth Industrial Revolution.

Many experts believe that we are now in the early stages of the Fourth Industrial Revolution, an era combining digital, physical and biological systems in a way never seen before. Virtual Reality (VR), Augmented Reality (AR), Artificial Intelligence (AI) and robotics are changing the way that we live and work and the rapid pace of change is disrupting almost every industry in every country.

I hope you have managed to get a glimpse of the future, your future with us at Taylor's and out there in the near years to come. You will see rapid changes in the business landscape so quickly regardless of the fields you are interested in. Here, we strive to ensure that you graduate to be the first choice for leading employers. We also aim to help you to graduate with entrepreneurial skills to establish your own successful businesses. With our Taylor's Curriculum Framework that is first-of-its-kind allows you to customize your degree and equip you with the skills needed for the future.

Many of the jobs that will exist in the future haven't yet been invented. Hard and soft skills are becoming more important, with technology in full speed, cognitive abilities are being replaced by AIs. International-minded, global views and exposure, soft skills and adaptability are skills and views that will prevail. Therefore, here at Taylor's we break boundaries to help you get ready.

We look forward to engaging with you more, please come and have a chat with us.

Taylor's University. More than just education.

Sincerely,
Professor Michael Driscoll
Vice Chancellor and President of Taylor's University.

ENROL NOW!

BACHELOR IN BIOTECHNOLOGY (HONS)

泰莱大学 生物科技 (荣誉学位)

SPECIALIZED INTERNSHIPS

Structured framework of industry training in specific niche areas. Find out more:

STUDY ABROAD – SPECIALISED EXTENSIONS

Students can opt for study exchange (UK/ Australia) and select a specific Biotechnology discipline areas:

1. Medical Biotechnology
2. Environmental Technology
3. Computational analytics
4. Biosensor Technology
5. Forensic science
6. Marine biology

FLEXIBLE CURRICULUM

Students can choose a selection of University wide-minors & second majors to enhance their career profile & graduate outlook.

1. Biotechnology with Entrepreneurship
2. Biotechnology with Analytics
3. Biotechnology with Pharmacology

MBOT CERTIFICATION

Certified by Malaysia Board Of Technologists (MBOT) as a Graduate Technologist.

✓ This certification recognizes students' competencies to work in the field of Biotechnology.

More information

Programme director:
Dr. Yap Wei Hsum
E: WeiHsum.Yap@taylors.edu.my
HP: +6012-685 0208

The Biotechnology program at Taylor's University expose students to industry-adopted curriculum with specialized skills training and industry-final year projects, which allow students to pursue internship attachment in specific Biotechnology niche areas.

Taylor's Biotechnology Alumni

Aayushree Kharel

Masters of Biotechnology and Bioinformatics at Deakin University; Vice-Chancellor's Academic Excellence Scholar

"Taylor's provide me the key skills and discipline knowledge which led me to receiving academic excellence scholarship from Deakin University to pursue Masters of Biotechnology"

Yaashviny Nair

Business Development Associate at Novozymes Biotech Malaysia

"Taylors provided me a platform to explore both my interests in sciences and communications. I assist my company in developing market and consumer insights across SEA"

Jacky Kong Jia Chen

Product Specialist at Interscience Sdn Bhd

"I have developed strong research foundation from my studies in Bachelor of Biotechnology and MSc from Taylor's University"

Thomas Loh Wing How

Medical Representative at LEO Pharma

"My journey through the Biotechnology degree at Taylor's University prepares me for the path in medical healthcare profession"

ENROL NOW!

BACHELOR IN BIOTECHNOLOGY (HONS)

泰莱大学 生物科技 (荣誉学位)

专业培训与实习质询

有规划的工业培训架构。更多详情，请扫以下二维码:

海外特定领域延展学习

学生可以自由选择与英国/澳洲大学的特定生物科技领域，交换留学:

1. 医学生物科技
2. 环境生物科技
3. 电脑分析技术
4. 传感器科技
5. 法医化学
6. 海洋生物学

具有灵活性的课程

学生可自由选修所有泰莱大学的微传业与第二专业科系来培养良好的事业形象与传业表现。

1. 生物科技与企业
2. 生物科技与分析技术
3. 生物科技与药理

MBOT 认证

学生将被Malaysia Board Of Technologists (MBOT) 认证为 毕业科技专家。

✓ 此认证书将肯定学士们在生物科技领域上的传业与工作能力。

更多详情

科系主任:
叶惠芯博士
E: WeiHsum.Yap@taylors.edu.my
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泰莱大学 生物科技学系为学生订造一个完整的工业采用课程。这包含规划性的技术培训与学期末工业-研究项目等，将确保学生在毕业后能够在特定的生物科技与工业领域里学以致用。

泰莱大学 生物科技学系 校友:

Aayushree Kharel
Masters of Biotechnology and Bioinformatics at Deakin University; Vice-Chancellor's Academic Excellence Scholar

"Taylor's provide me the key skills and discipline knowledge which led me to receiving academic excellence scholarship from Deakin University to pursue Masters of Biotechnology"

Yaashviny Nair
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Medical Representative at LEO Pharma

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TAYLOR'S UNIVERSITY BIOTECHNOLOGY PROGRAMME ALUMNI

TAYLOR'S UNIVERSITY
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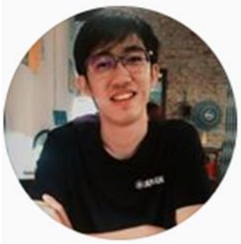

Matthew Wong Tze Jian
Regulatory Executive
Kotra Pharma Sdn Bhd

Asiah binti Salleh
Data analyst
IQVIA

Calvin Lim Lai Hock Business Development and Marketing
Novozymes Malaysia

Christal Two Sui Ling
Lab Analyst
Hengyi Petrochemical Industries

Lalitha Ambighai
Nutraceuticals representative
Protherapix Sdn Bhd

Ho Jiat Qing
Corporate Sales Consultant
Justel Sdn Bhd

Premadarshini Sai A/P Sri Ganesh
Case management Analyst
Thomson Reuters

Jeff Hong
Claim Assessor
AIA Shared Services Sdn Bhd

TAYLOR'S UNIVERSITY BIOTECHNOLOGY PROGRAMME ALUMNI

TAYLOR'S UNIVERSITY
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Oh Dick Loon
Software Developer and Consultant
Information Officer Pte Ltd

Yeow Wei Kee
Marketing and product development
Germax Sdn Bhd

Law Choon Yik
Healthcare Advisor
Pathlab Sdn Bhd

Muhammad Uzair bin Mohd Ismadi
Safety Supervisor
Dialog Group Berhad (oil and gas)

Liew Lee Bing
Chemist
Rubberex Glove Factory

Eugin Pow
Marketing Executive
Ajinomoto Malaysia Bhd

Lum Suk Quin
Biotechnologist
Tessa Therapeutics Sdn Bhd

Tiong Qi Enn
Graduate Research Assistant
Sunway University

OVERSEAS TRANSFER OPTIONS

TAYLOR'S UNIVERSITY
Wisdom · Integrity · Excellence

Rise With The Best™

UNITED KINGDOM (UK)

UNIVERSITY OF BIRMINGHAM
BSc Biological Sciences
1 + 2 years

UNIVERSITY OF DUNDEE
BSc (Biological Science)
1 + 2 years

UNIVERSITY OF THE WEST OF ENGLAND
BSc (Hons) Biological Sciences
1 + 2 years **or** 2 + 1 years

UNIVERSITY OF EAST ANGLIA
BSc Biological Sciences
1 + 2 years

UWE Bristol University of the West of England

UNIVERSITY OF BIRMINGHAM

UNIVERSITY OF DUNDEE

UEA University of East Anglia

AUSTRALIA

UNIVERSITY OF TECHNOLOGY SYDNEY
Bachelor of Biotechnology
Bachelor of Biotechnology (Environmental Biology)
(Medical Biotechnology)
(Computational Biotechnology)
1.5 + 1.5 years

Bachelor of Biotechnology (Biosensor Technology)
Bachelor of Forensic Science
Bachelor of Biomedical Science
Bachelor of Marine Biology
Bachelor of Environmental Biology
1 + 2 years

ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY (RMIT)
Bachelor of Science (Biotechnology)
1 + 2 years

GRIFFITH UNIVESRITY
Master of Pharmacy
3 + 2 years

RMIT UNIVERSITY

UTS UNIVERSITY OF TECHNOLOGY SYDNEY

Griffith UNIVERSITY Queensland, Australia

ENROL NOW!

BACHELOR IN BIOTECHNOLOGY (HONS)

泰莱大学 生物科技 (荣誉学位)

RESEARCH MOBILITY PROGRAMME

"My six weeks in UWE Bristol was nothing short of an insightful experience. From listening to the team's past experiences to conducting my own experiments, I enjoyed it all. The main topic during my time here is 'Volatile compounds for disease diagnostics'. Though I did not work on their ongoing research as their main machine broke down, I got firsthand experience with other useful devices, namely a commercial breath analyzer and one that the professors made themselves. These devices mainly measure volatiles in the breath such as hydrogen, methane, ammonia and so on. Throughout this six weeks, I got the opportunity to plan and conduct a few experiments on my own, without direct influence or supervision by the professor. Not being told what to do means I had creative freedom over what I wanted to do during my time here with what I had available. But of course, the professor still gave guidance and valuable advice whenever I needed them"

From left (►): Professor Norman Ratcliffe, Dr Ben, Dr Bahareh, Oliver and Julian Tay

Research Mobility at UWE By Julian Tay

UWE Bristol University of the West of England

"Aside from that, with such a short amount of time, execution is key. This really taught me to think ahead and carry my tasks with more focus. Oh! I even got the opportunity to talk to a higher up from Bedfont Scientific The time outside the lab was equally enjoyable too! Having the opportunity to live and travel alone will always teach you a thing or two about living independently, especially in an unknown environment. The tasks given were not too heavy, so I got time to explore and interact with the locals during the weekends. All in all, I'll definitely miss the coffee sessions with the professors, sharing my results with the professors and getting feedback, exploring the attractions in Bristol and other cities, and without doubt, the cold weather"

WORKSHOPS

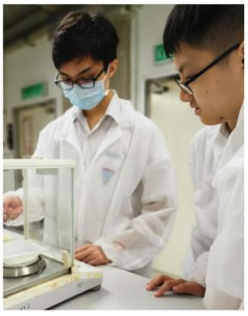
Nurturing the next generation of young plant tissue culturist

Plant Tissue Culture workshop 1
Media preparation
7 March 2020

Trainer: Dr. Nallammai Singaram

(▲) Media prepared by students based on varying combination of growth regulators to culture their selected plants.

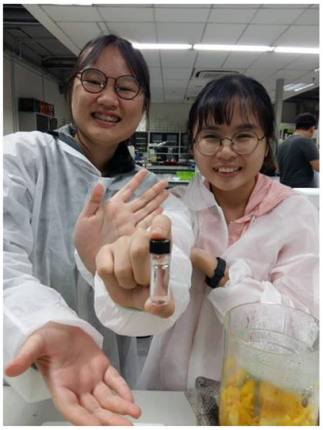
(▼) Media preparation and sterilization



Extraction of plant volatile oils workshop

DIY essential oils
7 March 2019

(►) Extracted essential oil. Plant volatile oils having much lower density than water will float on top of the aqueous layer.



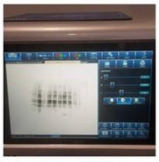
(►) Simple water distillation set up to extract volatile oils from orange peels. Low temperature bowl of ice promote the condensation of volatile oils. Liquified volatiles were collected by the glass plate below.

(◄) Students showing off their essential oil mixture extracted from orange peels & lemon grass.

INTERNSHIPS

"Through its long-term commitment to research in human stem cells and tissue cryopreservation, interning at CryoCord in the R&D field has enabled me to experience the workflow of applied research in the private sector".

cryocord 凯儿库
premier stem cell bank


Internship experience

Joshua Lee Voon Kai
Undergraduate Student,
Final Year 2020.

MSCs are non-hematopoietic stem cells that are able to proliferate indefinitely & differentiate into different tissue types.

BSc (Hons) Biotechnology in Microbiology, Taylor's University

"The variety of experiments that we have done on Mesenchymal Stem Cells (MSCs) has allowed me to realize the endless novel approaches such as improving viability and understanding the Immunology of MSCs. Relevant skills that came from my Degree in Biotechnology with Taylor's University have proven useful and has helped me to adapt efficiently in areas such as tissue culture, gene and protein expression analysis".

"Holistically, I have gained organizational skills such as keeping a daily research logbook and taking stock of the cost and inventory. As interns we were also being guided by the company's SOPs, thus the laissez-faire approach subsequently had given us the opportunity to become independent researchers through problem solving, planning, and collaboration. Furthermore, the presentations we made after experiments has allowed us to understand new scientific discoveries, discuss experimental results and pitfalls. All in all, I'm now confident that I'm better equipped in conducting any future research".

"My internship at LAB-IND Resource Sdn. Bhd and GeneSEQ Sdn. Bhd. was a very pleasant experience and I was very fortunate to secure a placement here. Apprenticing in an industrial lab company has given me tremendous opportunity to learn and grow as a biotechnology undergraduate".

LIR BioTech GeneSEQ NEXT GENERATION SEQUENCING

Internship experience

Elaine Lee
Undergraduate Student,
Final Year 2020.

"I hope that readers of this post will feel empowered to pursue this path in biotechnology"

BSc (Hons) Biotechnology in Microbiology, Taylor's University

"Having an extensive hands-on experience in molecular work during my undergraduate research project has first sparked my interest. However, when I started my training here in Rawang, I realized that there is a nuance between the academia and the industry setting. In the academia environment, research work is more done for the sake of learning and discovering whereas in the industry, it involves many technical applications and considerations. A pro tip that I have learnt from the industry sector is the concept of providing integrated solutions to customers. Providing key solutions in helping clients overcome challenges in their businesses is one of the things that I feel, a biotechnologist has the capacity to deliver. I have also learnt that, it's important for people working in the industry to be conscientious and excellent communicators to better organize projects".

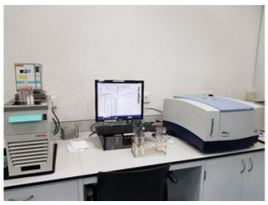
Internship experience

William Lee Wai Leong
Undergraduate Student,
Final Year 2020.

BSc (Hons) Biotechnology, Taylor's University

novozymes®
Rethink Tomorrow

"Having my internship in Novozymes Malaysia really gave me a whole new experience. I was assigned to work in the Global Oils and Fats Lab which gave me the opportunity to deal with international projects. Besides that, I was exposed to many different lab analyses that I never worked on before. For example, using the auto-titrator to check for free fatty acid percentage, checking the pH of water extract, moisture determination, solid fat content determination, peroxide value determination and more. In addition, enzymes were applied in some of the projects such as enzymatic degumming and enzymatic interesterification processes".



"Furthermore, Novozymes Malaysia gave me the opportunity to attend all the meetings including international meetings with the CEO of Novozymes. I made a lot of new friends and expanded my circle of network. Other than the normal work, Novozymes also organized other events to further enrich my experience here in Novozymes such as Smoothie Day, Zumba Workout, Yoga Fitness, International Women's Day, Chinese New Year Celebration, monthly birthday celebration and making my Valentine's Day so sweet. Thus, having my internship here in Novozymes Malaysia has really enriched my experience".

Internship experience

Muhammad Zayd Khairil Anwar
Undergraduate Student,
Completed in March 2020.

Tissue culture (PTC) is the cultivation of plant tissues or organs from a single cell on specially formulated nutrient media.

BSc (Hons) Biotechnology, Taylor's University

"For the past few months I had been given the chance to improve my knowledge involving plant tissue culture at University of Malaya Centre for Research in Biotechnology for Agriculture (CEBAR), Plant Biotechnology Incubator Unit (PBIU). At UM, I shared my knowledge about plant tissue cultures, not only to students and academicians, but to the public".

UNIVERSITI MALAYA
KUALA LUMPUR

CEBAR

"I demonstrated the techniques of plant tissue culture in a few workshops. I introduced to farmers the benefits of plants propagated through via different tissue culture methods. Besides coordinating workshops, I had the chance also to micropropagate *Musa acuminata cultivar Berangan* by using suckers as explant material, as well as culturing *Zingiber zerumbet Smith*, commonly known as Lempoyang as a mini project. This mini project had given me large insights on plant tissue culture and the challenges faced by scientists in this field. I am grateful that I have been given this chance to do my internship at Plant Biotechnology Incubator Unit at CEBAR, in which I had bagged home lots of new experiences".

JOB PROSPECTS

BIOTECHNOLOGY COMPANIES & RESEARCH INSTITUTES IN MALAYSIA

Agriculture & Food Security

Pharmaceutical & Bioprocessing companies

Business & Entrepreneurialism

Analytical Diagnostics Companies

Agro-business Company In Malaysia

COMMUNITY SERVICE 2020

Community Services Activity from School of Biosciences to PPR Seri Alam

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Main sponsor: MahSing FOUNDATION

Partner: ***Persatuan penduduk PPR Seri Alam***

On 18th January 2020, undergraduate students from the Taylor's University School of Biosciences (Biotechnology, Biomedical Science and Food Science), conducted a targeted health screening event for the B40 community group at PPR Seri Alam, Kuala Lumpur. The community service initiative aims to create health awareness among the community group. The list of activities include determination of glucose level, high blood pressure, and cholesterol level. Alongside the health screening activities, the students have also arranged for activities like color painting and ring tossing for the young kids. Besides, free gift packs (rice, milo, milk and biscuits) are given to the participants as a token of appreciation. Overall, this event is very successful, and very thanks to all the students and supervisors for organizing this event.

COVID-19 OUTBREAK INITIATIVE

To curb spread of SARS-CoV-2

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Certificate of Analysis

Quantitative Suspension Test

Period of testing : **06 March 2020**

Aim of the study : To evaluate the bactericidal effect of selected chemical products

Product Name : FHMS Sanitizer (Clear liquid)

Active substances : 75% isopropyl alcohol, 0.13% hydrogen peroxide, 1.4% glycerol

Storage condition : 25°C

Test Protocol : **BS EN 1276:2009** ***Test temperature:*** 25°C ***Incubation temperature:*** 25 °C

No.	*Test strain:*
1	Escherichia coli, ATCC 10536
2	Staphylococcus aureus, ATCC 6538
3	Pseudomonas aeruginosa, ATCC 15442
4	Candida albicans, ATCC 90028

No.	*Contact time:*
1	10 s
2	30 s

No.	*Product dilution:*
1	100% (Ready to use)

Interferring conditions: 3 g/L bovine albumin = dirty conditions
Product diluent used: Nil
Neutralizer used: Polysorbate-80 (3% w/v), Saponin (3% w/v), Lecithin (0.3% w/v), L-cysteine (0.1% w/v).

Test Results: Refer to Appendix 1

Conclusion: According to EN 1276:2009, FHMS Sanitizer possesses high bactericidal activity of >5 log reduction in viability when tested at concentration 100% (ready to use) under dirty conditions against all referenced test strains, Escherichia coli, Staphylococcus aureus, Pseudomonas aeruginosa and Candida albicans, within 10 s contact times, at 25°C.

Test performed by: Mr. Mohd Izzuddin Alias, Laboratory officer, FHMS, Taylor's University.

Report prepared by:

Signed:
Name: Dr. Lee Khai Wooi
Date: 06 March 2020
Position: Research scientist
Infectious Disease Group
Taylor's University

Approved by:

Signed:
Name: Prof. Dr. Chong Pei Pei
Date: 06 March 2020
Position: Leader
Infectious Disease Group
Taylor's University

WHO-Recommended Handrub Formulation

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Wisdom · Integrity · Excellence

Prepared and validated by

School of Pharmacy and School of Biosciences

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BACHELOR IN BIOTECHNOLOGY (HONS)

泰莱大学 生物科技 (荣誉学位)

RESEARCH

Plant tissue culture is a method used to mass propagate disease free plantlets for field planting, conservation and selection. Dr. Nallammai Singaram is a plant tissue culturist with over 20 years of experience in both research and commercial set-up. Her expertise includes the mass propagation of plants and identification of bioactive compounds for human health and diseases. Dr Nalla is also exploring the potential of polyploidization of plants to support food security.

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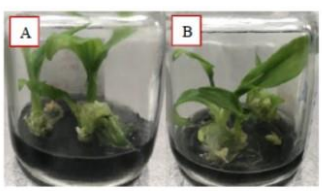
Mass Propagation of *Zingiberaceae sps.*

E: Nallammai.Singaram@taylors.edu.my



(▲) Ginger plant tissue culture

Dr. Nallammai Singaram

Agricultural biotechnology encompasses technologies used in food and agriculture, for a range of different purposes such as the genetic improvement of plant varieties and animal; genetic characterization and conservation of genetic resources; plant or animal disease diagnosis; vaccine development; and improvement of feeds (FAO,2009a). Research and development of sustainable production, sustainable management of pest and diseases, nutritional security and safe food is envisaged to be a potential tool to ensure food security to combat hunger and poverty.

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BACHELOR IN BIOTECHNOLOGY (HONS)

泰莱大学 生物科技 (荣誉学位)

RESEARCH

Hyaluronic acid (HA) is a high molecular weight polymer and a major component of mucoid capsule in bacteria and extracellular matrix (ECM) of vertebrate tissue. Due to its unique characteristics, HA is used extensively in medical and cosmetic field. HA isolated from animal tissues that contain proteins and DNA which may potentially cause adverse immune reactions, therefore, production of HA through fermentation by microbial strains become more important.

Microbial Production of Hyaluronic Acid

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E: ZeeWei.Lai@taylors.edu.my

HA molecule which consists of D-glucuronic acid & N-acetylglucosamine

Dr. Lai Zee Wei is an expertise in Industrial Biotechnology. Her research focus is based on bioprocess which comprises upstream and downstream process to diverse application of valuable products (polysaccharide, enzymes, and etc.) in various industry fields. Her current research interest is on nano emulsion of HA from *Streptococcus zooepidemicus* as carrier in cosmetic product.

Industrial biotechnology, also known as white biotechnology, is the modern use and application of biotechnology for the sustainable processing and production of chemicals, materials and fuels from renewable sources, using living cells and/or their enzymes.

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BACHELOR IN BIOTECHNOLOGY (HONS)

泰莱大学 生物科技 (荣誉学位)

RESEARCH

Animal tissue culture is a common technique used in animal biotechnology. It involves *in vitro* maintenance and propagation of cells, tissues or organs in artificial environment. These culture systems are created for cancer research, virology, drug development and toxicological testing.


cancers

MDPI

Review

Honokiol: A Review of Its Anticancer Potential and Mechanisms

Chon Phin Ong, Wai Leong Lee, Yin Quan Tang * and Wei Hsum Yap *

School of Biosciences, Faculty of Health and Medical Sciences, Taylor's University Lakeside Campus, No. 1, Jalan Taylor's, Subang Jaya 47500, Malaysia; chonphin96@gmail.com (C.P.O.); leewl01088@gmail.com (W.L.L.)
* Correspondence: yinquan.tang@taylors.edu.my (Y.Q.T.); weihsum.yap@taylors.edu.my (W.H.Y.)

Received: 30 November 2019; Accepted: 19 December 2019; Published: 22 December 2019

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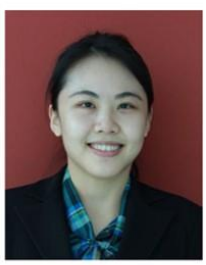

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Animal Biotechnology in Medicine

Dr. Yap Wei Hsum
Programme Director (Biotechnology)
E: WeiHsum.Yap@taylors.edu.my

Animal biotechnology uses molecular biology techniques to modify animal cells and living organisms, genetically, to improve their suitability for pharmaceutical, agricultural or industrial applications. Dr Yap Wei Hsum is a molecular pharmacologist. Her research covers the mechanistic system modeling of cancers, drug testing on animal cells and skin models. Wei Hsum also interested in exploring the cardioprotective and anti-inflammatory potentials of bioactive compounds, such as maslinic acid and honokiol for cardiovascular diseases and cancers.

BACHELOR IN BIOTECHNOLOGY (HONS)

泰莱大学 生物科技 (荣誉学位)

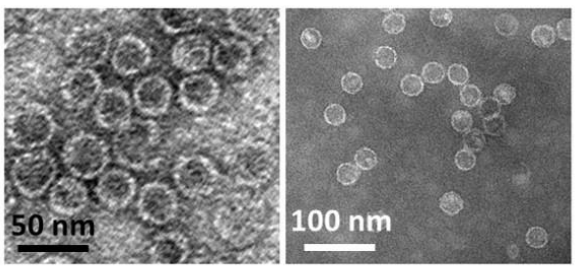
ENROL NOW!

RESEARCH

"Virus-like particles (VLPs) are artificial protein structures that mimic the organization and conformation of authentic native viruses but lack the viral genome. VLPs are noninfectious biomaterials".

Hepatitis B virus-like particles (▼)

Turnip yellow mosaic (▼) virus-like particles



Dr. Lee Khai Wooi is a Nanobiotechnologist from School of Biosciences. He is known for his expertise in molecular virology, specialized in nanomedicine. He produced VLPs from plant and animal viruses via DNA recombinant technology for vaccine development, drug and gene delivery.

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Advancements in Medical Biotechnology

Dr. Lee Khai Wooi (Jason)
Infectious Disease Research Group
E: KhaiWooi.Lee@taylors.edu.my

Medical biotechnology is a specialized discipline that uses cellular materials to produce pharmaceutical and diagnostic products that help treat and prevent deadly human diseases.

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泰莱大学 生物科技 (荣誉学位)

RESEARCH

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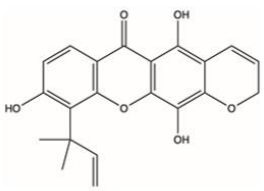
Natural Products & Medicinal Chemistry Drug Discovery

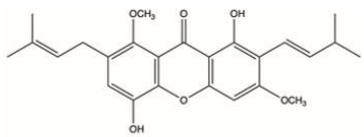
Dr. Mah Siau Hui
Programme Director (Postgraduate Programmes)
E: SiauHui.Mah@taylors.edu.my

Natural products are the major sources of lead compounds for new drug design and development. Many of compounds isolated or derived from natural products have been developed into drug candidates that are useful in targeting diseases and illnesses such as cancers, heart diseases, HIV, diabetes and various infection diseases.

(▼) Soulattrin



(▼) Phylattrin



Drug discovery is an important are in biotechnology which involves the identification of leads from genes, proteins, natural products and their synthetic derivatives for therapeutic potentials. Dr. Mah Siau Hui is an organic chemist specialized in natural products and medicinal chemistry. Her research interest focuses are the search for biologically important phytochemical compounds from natural products, as well as design, synthesis and structure-activity relationship of the natural products for the discovery of potential lead compounds for anti-cancer, anti-inflammatory and anti-Alzheimer's disease agents. She is also actively involving in the oil palm related research, particularly the utilization oil palm biomass and its nutritional values.

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RESEARCH

Dr. Ng Jeck Fei, chemist in School of Biosciences has a research focus in designing safer chemicals and processes for industrial application. "It could make a difference if researchers make effort in developing processes which use less energy and toxic chemicals. We need a more environmental friendly and sustainable strategy in manufacturing products. Often time, we found that better solution are those mimicking mother nature."

(▲) Macroalgae mediated synthesis of silver nanoparticles at various pH.

Her research work involve using biocatalyst in chemical production which require only mild reaction conditions, developing engineered biofilm for plant fungal study and also using natural extracts replacing toxic chemicals in production of nanoparticles.

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Green Chemistry in Biotechnology

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泰莱大学 生物科技 (荣誉学位)

RESEARCH

Self-healing materials possess the ability to heal in response to damage inflicted to the materials. They are widely used for medical, industrial, and agricultural applications.

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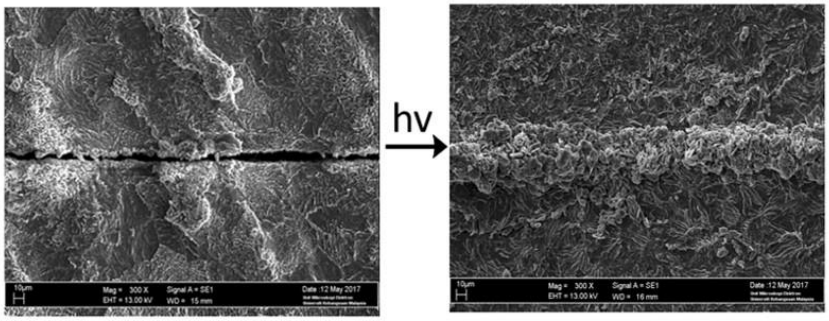
Self-healing Materials & Analytical chemistry

E: CheeSien.Wong@taylors.edu.my

(▼) Self healing by random dimerization of coumarins



Dr. Jason Wong Chee Sien is a chemist. His research interests include green polymeric and self-healing materials. He teaches Analytical Chemistry under Biotechnology programme. Analytical Chemistry is the study of separation, identification and quantification of the chemical components of materials.

Taylor's University Biotechnology 泰莱大学生物科技 is 😀 feeling awesome.
Published by Jason Lee [?] · 7 March at 12:37 ·

Human in vivo CRISPR-mediated gene editing for the first time👍😀
#Biotechnology #GeneEditing #CRISPR

NATURE.COM
CRISPR treatment inserted directly into the body for first time
Experiment tests a gene-editing therapy for a hereditary blindness disorder.

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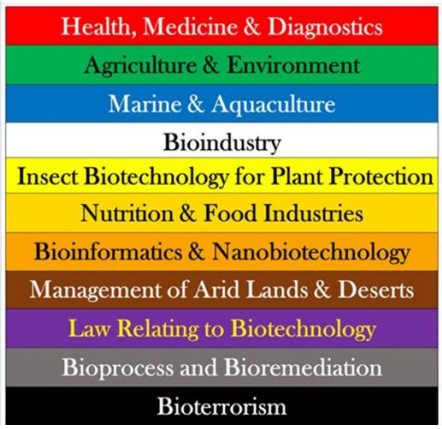
Published by Jason Lee [?] · 3 March at 18:13 ·

The Colors of Biotechnology
#MoreThanJustEducation #TUBiotech



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Published by Jovy LAi [?] · 27 February at 14:50 ·

A Biotech company launches a kit for detection of SARS-CoV-2 (a virus which causes Covid-19)

THEMALAYSIANRESERVE.COM
ADT Biotech launches kit for detection of SARS-CoV-2
ADT Biotech Sdn Bhd has launched a device named "LyteStar 2019-nCoV…

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Published by Jason Lee [?] · 29 February at 16:43 ·

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Published by Jason Lee [?] · 26 February at 22:12 ·

Moderna: mRNA-coronavirus vaccine
#Biotechnology #mRNA1273 #FirstTrial

CNN.COM
Biotech company Moderna says its coronavirus vaccine is ready for first tests

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Published by Jason Lee [?] · 29 February at 13:17 ·

Turning biomass into business
Turning plants into products
#Biotechnology #BioNylon #GlobalNylonIndustry #TenBillions
https://www.google.com/…/bio-nylon-is-the-new-green-ho…/amp/

Forbes

EDITORS' PICK | 3,432 views | Feb 11, 2020, 8:10 am

Bio-Nylon Is The New Green: How One Company Is Fermenting A $10 Billion Market

John Cumbers Contributor
Manufacturing
Synthetic biology & space settlement connector, founder and investor.

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Published by Jason Lee [?] · 28 February at 05:41 ·

#CosmeticBiotechnology #Microbiome #Beauty4.0 #Sustainability
"Beauty biotech will gain importance in the coming years, driven by environmental concerns and limited natural resources, but industry will have to work hard at creating positive consumer perceptions", Royal DSM.

COSMETICSDESIGN-EUROPE.COM
DSM: Biotech will play a 'much larger role' in the future of beauty

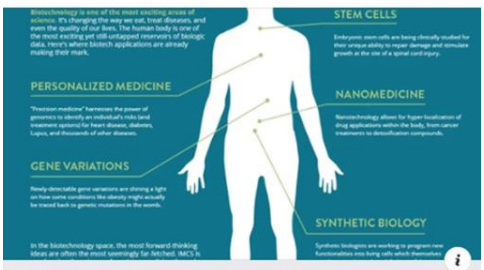
Taylor's University Biotechnology 泰莱大学生物科技
Published by Jason Lee [?] · 7 March ·

Green building, not from plants, but from microorganisms:
The smart buildings of the future
#Biotechnology #SmartHomes

NST.COM.MY
FUTURE PROOF: Biotech for smart buildings
WHEN you hear the word "biotech", it normally conjures up images of…

Taylor's University Biotechnology 泰莱大学生物科技
Published by Yap Wei Hsum [?] · 2 March at 11:41 ·

Biotechnologies such as precision medicine, tissue engineering, RNA therapeutics, immunotherapies, living-cell therapies and advanced diagnostics are revolutionizing the way we live and fight disease.



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Who holds the key to the future of biotechnology? You do
Your data is key to all developments in biotech. But first we need to find a…

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Published by Jason Lee [?] · 1 March at 17:57 ·

Existing antiviral drugs against (+)ssRNA viruses may potentially inhibit replication of Covid-19 in the hosts.
#Biotechnology #DrugDiscovery #DrugRepurposing #MERS #SARS #BroadSpectrumAntiviralAgents #BSAAs

GENENGNEWS.COM
Coronavirus Treatment Could Lie in Existing Drugs
A coalition of European researchers says that already approved drugs mig…