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science

VOL. 34 NO.28

TIGP Molecular
Taiwan International Graduate Program Medicine
Program

Words of Wisdom

From TIGP-MMP Graduates
& Faculty Members



2022012021

Special Thanks to



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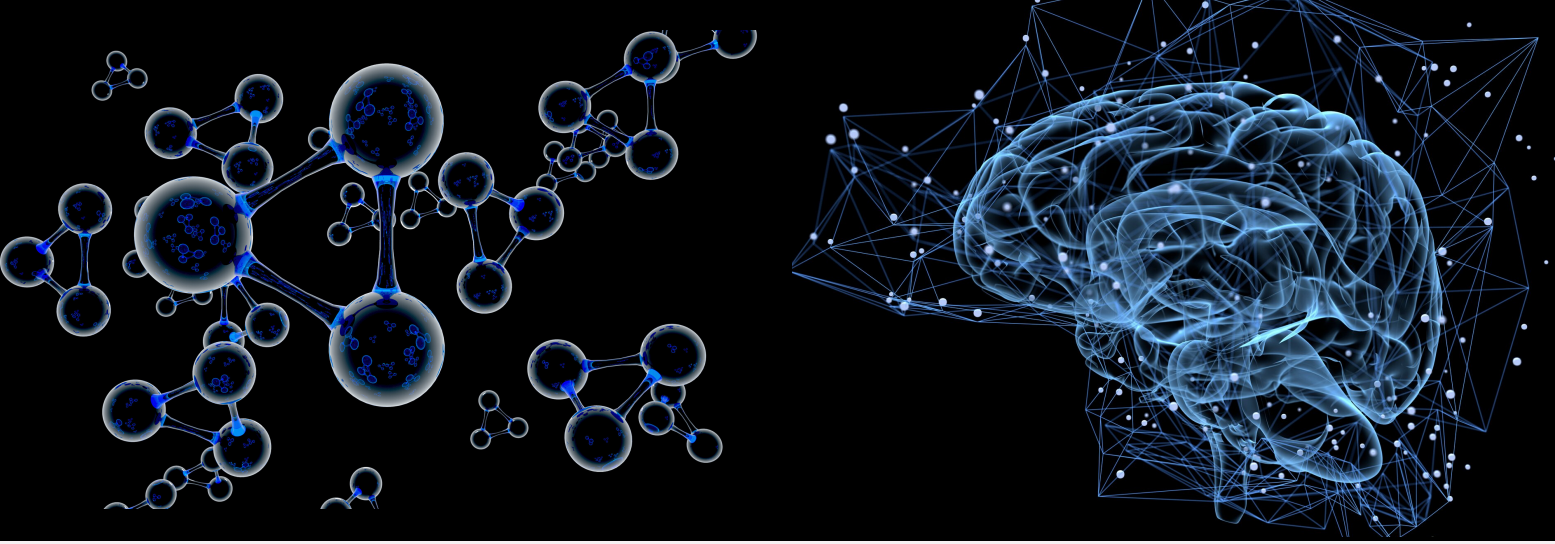
Dr. Jian Jing Siew

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Guest Author

Dr. Bernard Chuong Hock Ting

Not forgetting our always helpful
TIGP MMP programme secretary,
Ms. Rebecca



DR. YI SHUIAN HUANG
Ph.D. University of Texas Southwestern Medical Center at Dallas



Professional Experience

2018 - Present: Research Fellow, IBMS
2016 - Present: Senior Editor, Brain Research
2013 - 2018: Associate Research Fellow, IBMS
2006 - 2012: Assistant Research Fellow, IBMS
2005 - 2006: Scientist, Product of Development, CellPoint Diagnostics, Inc. USA
1999 - 2005: Postdoctoral Research Fellow, Program of Molecular Medicine, University of Massachusetts Medical School

What was the best advice given to you during your PhD or post-doctoral fellowship?

Ph.D. time: When I did not get a positive result, my mentor always said “it must be a technical issue”. My committee also questioned how good my primary hepatocyte culture was because I did not get the result similar to what I found in hepatoma cells. Thus, I ended up being pretty good at finding appropriate controls from literature and including those controls in experiments to prove my skills at that time. Also, I could discuss why my studying target did not work as well as the positive control. This is very important for my scientific career.

Postdoc time: “Timing is everything, you need to focus, zoom in..... to publish your results.” My postdoc mentor made me realized that science is not a slow cooking business. In fact, I already knew that, but I always wanted to try more things to improve my manuscript or do experiments for other projects. Many Ph.D. students and postdocs prefer doing experiments rather than writing. My postdoc advisor told me that when the time comes to wrap up a story, the very first priority is to finish it, because the same story published 2 years later may be downgraded (e.g. from Nature Neuroscience to J Neuroscience).

How did you decide on your future career pathway after your PhD?

I tried both (academic institutes and biotech companies). I had several interviews and decided to work for a company first. After a year, I decided to switch back to the academic institute (IBMS).

In your opinion, what do you feel is the most important factor(s) leading to your success in your PhD and post-doctoral fellowship?

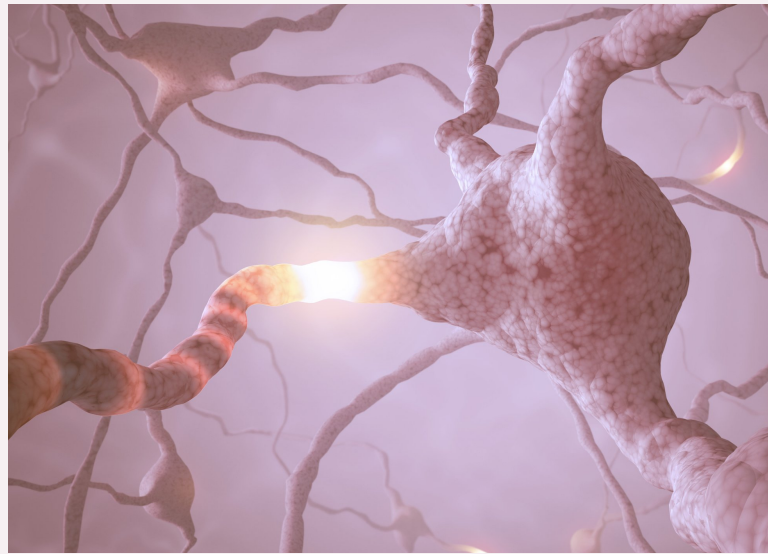
You (not your PI) must be able to lead and wrap up your story for your Ph.D. study, including coming up with some ideas, designing experiments to test your idea and writing the entire manuscript by yourself. Even if your Ph.D. mentor has to make a lot of corrections on your manuscript, it should just be on “writing” not on “scientific logic”. Your degree does not guarantee you a successful postdoc but your ability does.

What additional advice do you have for current TIGP students?

It is very normal to feel uncertain about your career because most of us are ordinary people, not Steve Jobs or Elon Musk. When I received my diploma, I didn't even know if I am qualified as an independent researcher. As a graduate student, you should learn as much as you can both technically and intellectually. Don't wait until your PI asks you to try this and that. You should be able to design your next experiments based on your data. The more senior you are, the easier it is, if you keep thinking and pipetting. Otherwise, scientific research may not be the best career for you.

What was your inspiration and motivation for your current research interest and direction?

Stemmed from my postdoc research (translational control in learning and memory) and recent advances in epitranscriptomic modifications (chemical modifications on RNA were discovered more than a half century ago but how cells interpret these hidden messages to control gene expression is largely unknown).



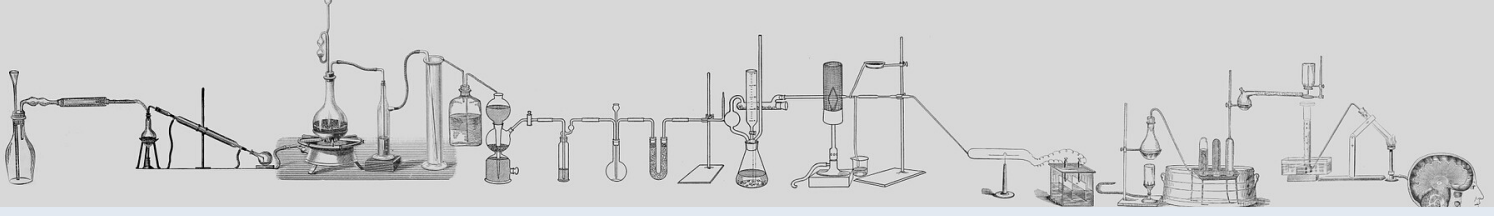
The ones who are crazy enough to think they can change the world, are the ones who do.

- Steve Jobs

“
*For Every Reason
It's Not Possible,
There Are Hundreds
Of People
Who Have Faced
The Same
Circumstances &
Succeeded*
”

JACK CANFIELD

The background of the image is a dark, starry night sky transitioning into a sunset or sunrise glow. In the foreground, the silhouettes of several people are standing on a hill, looking towards the horizon. To their right, there are large, dark trees. The overall mood is contemplative and inspiring.



DR. CHE-MING JACK HU
Ph.D. University of California, San Diego (Bioengineering)



In your opinion, what do you feel is the most important factor(s) leading to your success in your PhD and post-doctoral fellowship?

An eagerness to create meaning might be my most candid take on the important factor for my PhD/Post-doc trainings. Being a Doctor of PHILOSOPHY is all about asking one question after another, answering one 'why' just so you can get to the next 'why'. And it's difficult to fuel an inquisitive mind with knowledge if it's preoccupied with contentment and satisfaction. PhD training is almost always accompanied with existential dread, and the eagerness to break through that dread is what sets one up for PhD success in my opinion.

Professional Experience

2019-present:

Associate Research Fellow, IBMS

2015-2019:

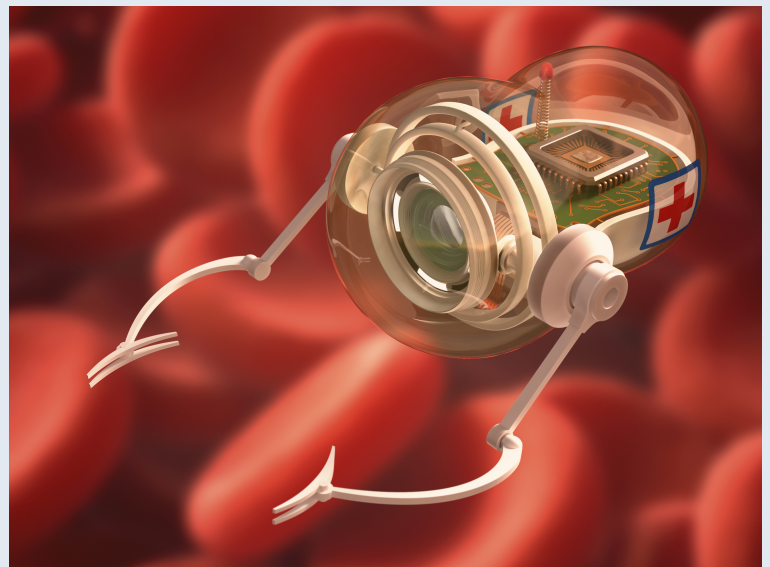
Assistant Research Fellow, IBMS

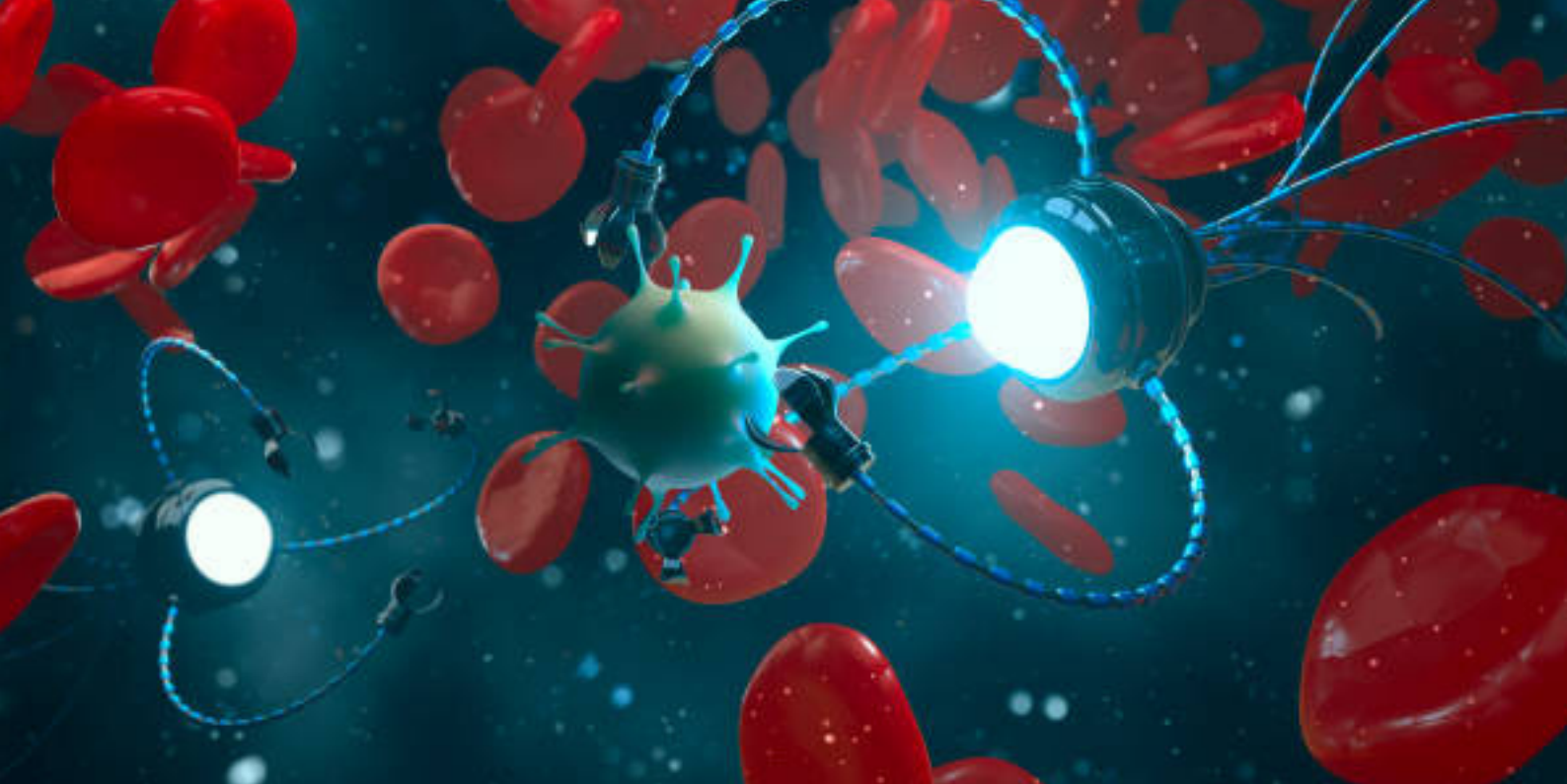
2012-2015:

Co-founder/Director Arytha Biosciences, CA, San Diego

What was the best advice given to you during your PhD or post-doctoral fellowship?

The best advice came from my PhD advisor, who continuously reminded me of the golden mantra "publish or perish" by requesting me to write papers and review articles one after another. Looking back, the stack of papers I wrote not only set me up for job applications, it was perhaps the most transformative exercise both intellectually and spiritually. There is no better way to organize one's thought than to put words down on a piece of paper, and the process of scientific writing helps me appreciate science and literature on an entirely different level. More importantly, the process influences many aspects of my life, such as problem solving and communication. Writing is never easy; it's introspective, it exposes flaws in one's train of thoughts. But mastering it is rewarding and is an essential part of PhD training.





How did you decide on your future career pathway after your PhD?

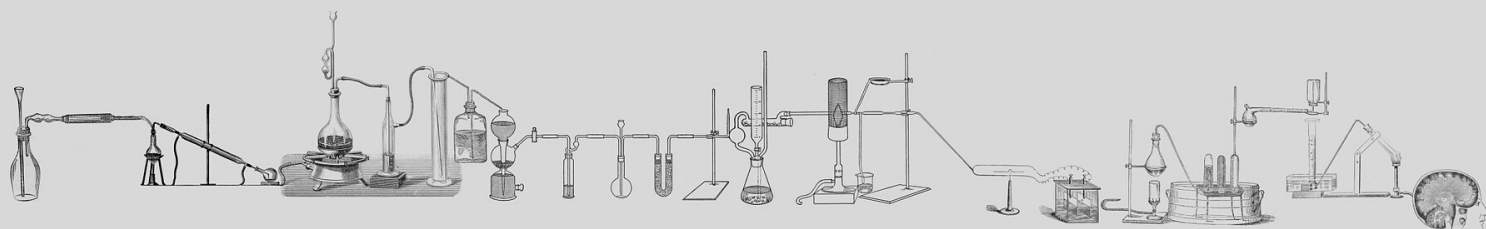
At the end of my Post-Doc training, I co-founded a company with my advisor and had several different career options. Yet pursuing an academic job was a simple decision for me as I had many ahead-of-its-time ideas I wanted to pursue. An academic position is unique in its versatility and boundlessness to cater to the untamed minds. If you have an adventurous mind and if you are excited by the payoff of discovering the unexplored and ascertaining the unexpected, an academic position is definitely for you.

What was your inspiration and motivation of your current research interest and direction?

My current research interest is immunoengineering, where I develop nanotechnology and biomaterials to control the immune system in ways previously unachievable. I am excited by this direction because of its interdisciplinary nature. To me, science is most exciting when different disciplines are merged together, and the sparks from such mixing tend to create paradigm-shifting results. Immunoengineering is a unique area that mixes chemistry, biology, physics, and medicine, and it has broad medical implications as immunology is tied to every major diseases ranging from infections, cancers, to cardiovascular and neurological diseases.

What additional advice do you have for current TIGP students?

I'd like to share the quote by John F. Kennedy on the very first moonshot mission, *"We [do things] not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept."* Getting a PhD is not meant to be easy, it's meant to be worthwhile. I am proud of all of you who took the determination to take this first step. Now proceed to complete this adventure.



*The Pessimist Sees
Difficulty In Every
Opportunity.
The Optimist Sees
Opportunity In Every
Difficulty*

Winston Churchill



D R . I - H S U A N J E S S I C A W A N G

Ph.D. University of Zurich



What was the best advice given to you during your PhD or post-doctoral fellowship?

- 1.You need to fancy up your own research. We all do projects that are “important”, but the feeling that what you do is “cool” helps to keep you motivated.
- 2.One should work hard, but don’t burn out.

These advices were from a senior PhD student in my PhD lab, who guided me in my first year as a PhD student.

Professional Experience

2019-present:

Assistant Research Fellow, IBMS

2015-2019: Postdoctoral

Researcher, University of Tokyo

2014-2015: Postdoctoral

Researcher, University of Zurich

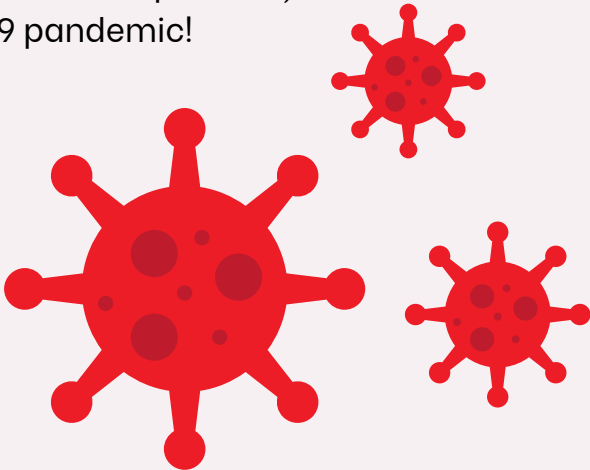
In your opinion, what do you feel is the most important factor(s) leading to your success in your PhD and post-doctoral fellowship?

- 1.The research approach that I’m truly interested in and invested time to master became popular.
- 2.Good luck.
- 3.The connection I developed over the years.



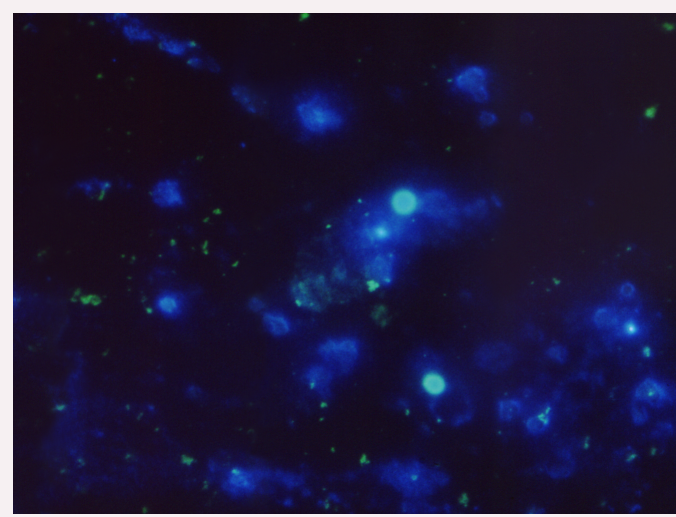
What was your inspiration and motivation for your current research interest and direction?

There are countless viruses, so one will always have something new to work on; Plus that one's work may really "save the world" (this is the motto of my postdoc supervisor) – look at the COVID-19 pandemic!



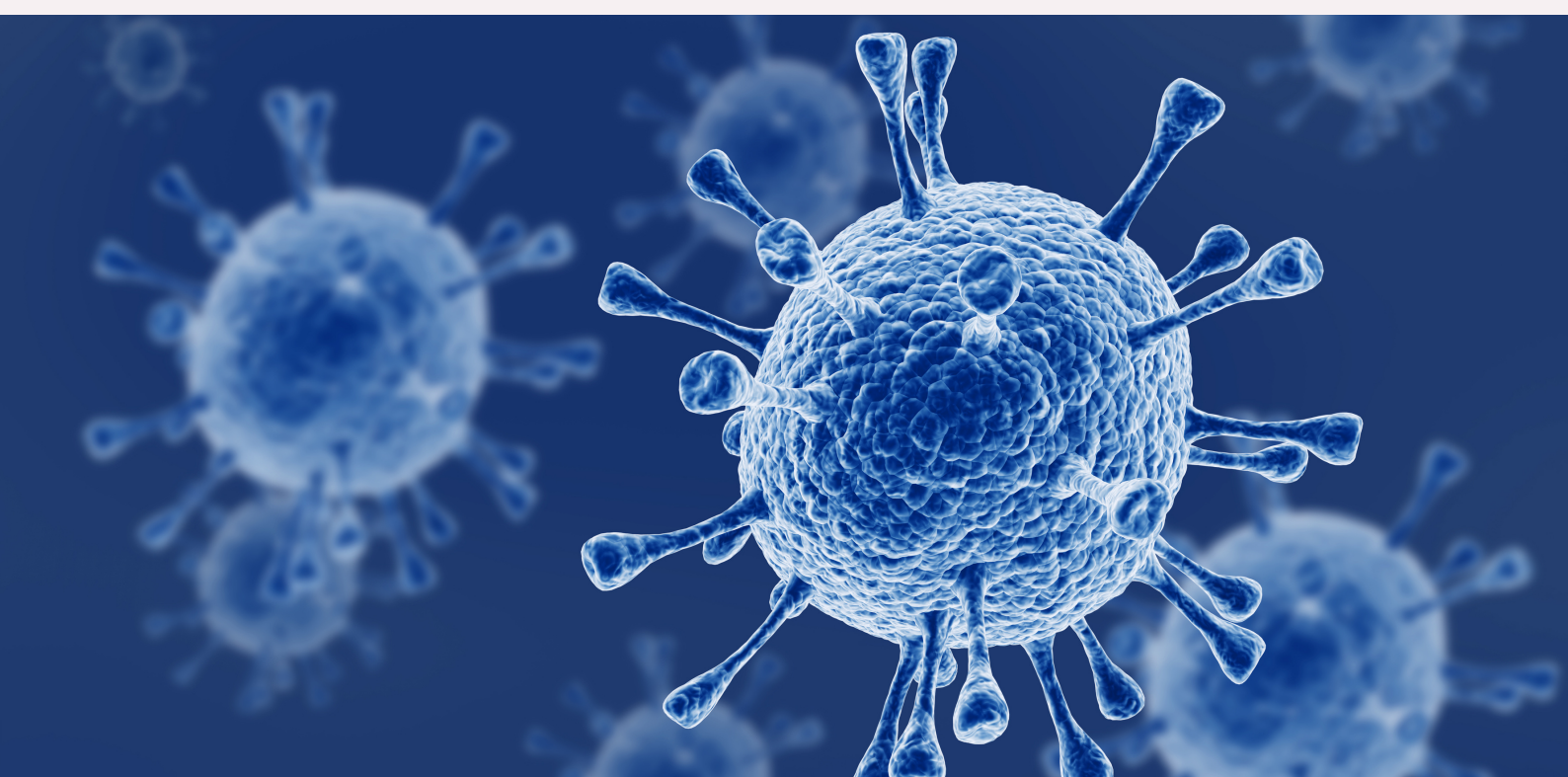
How did you decide on your future career pathway after your PhD?

I realized that it is academia that will support me on doing the things I am interested in and want to do, so I chose the career path to become a PI.



What additional advice do you have for current TIGP students?

Always reach out and talk to people





"Do things
at your own
pace. Life is
not a race."



DR. YU-HUAN TSAI

Ph.D. Pasteur-Paris University International Doctoral Program



What was the best advice given to you during your PhD or post-doctoral fellowship?

Research life is not easy.
(From my PhD thesis advisor)

We all try to have a sense of achievement from any small advances. Most PhD students will put the blame on their thesis advisor, but you will find that the pressure makes you stronger.
(From a postdoc in my PhD lab)

In your opinion, what do you feel is the most important factor(s) leading to your success in your PhD and post-doctoral fellowship?

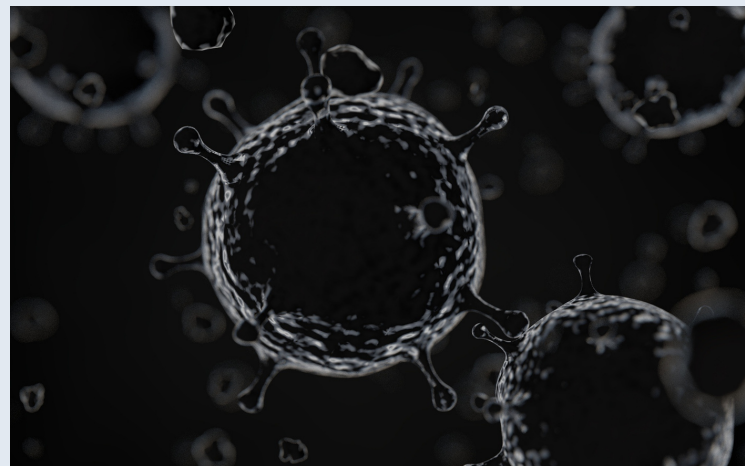
Do not blame the environment when you fail. Be well-prepared all the time, and the chance will come.

Professional Experience

2018-present: Assistant Professor, NYCU
2015-2018: Postdoctoral Researcher, Chang Gung University
2014: Postdoctoral Researcher, Institut Pasteur

How did you decide on your future career pathway after your PhD?

I aimed to be a researcher in the university when I was 15 years old. The decision has not changed since then.



What was your inspiration and motivation for your current research interest and direction?

I realize that my research can have a direct impact on human health in addition to my interest in fundamental scientific research.

”
All our dreams can
come true if we have the
courage to pursue them.

Walt Disney



DR. KUMAR SANJIV
TIGP MMP 2011
(ADVISOR: DR. LEE, TE-CHANG)



In your opinion, what do you feel is the most important factor(s) leading to your success in graduating from TIGP?

Listen to your supervisor. Know your strength, weakness and interest based on that choose the lab. In my case, whenever I got stuck in my experiments or future planning for the experiments. I just listen to my supervisor. They are quite experienced, and they are there to help us out. Prove one data from different angle or experiments, that was the reason my paper got accepted without any revision and I could graduate in 5 years with 5 papers.

What additional advice do you have for current students?

Reach out to the people, the worst thing they can say is no to you, don't lose your heart and keep rolling. Destiny is fixed. Don't limit yourself in academic lab for post-doc training. There are many pharmaceuticals company in the Europe which offer the post-doc positions.

Professional Experience

2016 - Present: Assistant Professor, Karolinska Institutet

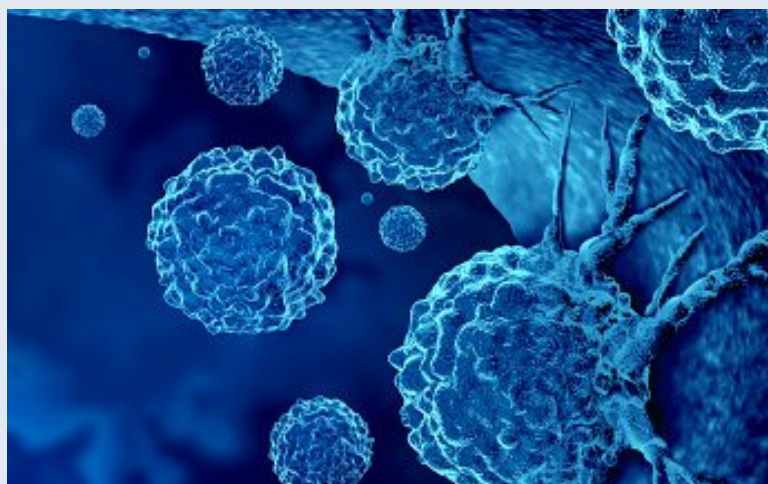
2012 - 2016: Post-Doctoral Fellow, Karolinska Institutet

***What was the best advice given to you during your PhD?
(Who gave you the advice?)***

Place doesn't matter for the quality of the research, your supervisor, and the lab matters at the end (My senior from USA)

How did you decide on your future career pathway after your PhD?

When I was about to finish my PhD (6 month before), I started to make data base of the lab of my interest and whenever I get time, I use to send CV and cover letter to the PIs. I just send the CV, irrespective of any opening in the lab. PI does create the job if they find you suitable. I talked to myself and dug out my strength and weakness, based on that I took decisions.

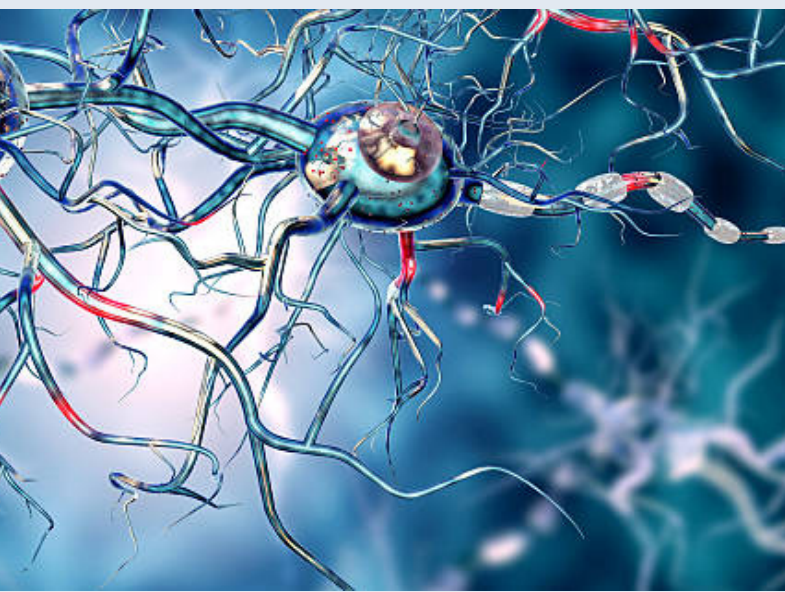


DR. JIAN JING SIEW
TIGP MMP 2019
(ADVISOR: DR YIJUANG CHERN)



How did you decide on your future career pathway after your PhD?

You need to know what you want in your life, the whole PhD process is a good time for you to think carefully about that. “Ask and it will be given to you; seek and you will find; knock and the door will be opened to you.”



Professional Experience

2019 - Present: Post Doctoral Fellow, IBMS

What was the best advice given to you during your PhD?

Your life is your responsibility. Do what is right, not what is easy. Make things easier, but not easy.

In your opinion, what do you feel is the most important factor(s) leading to your success in graduating from TIGP?

Good communication and well planning with your PI.



What additional advice do you have for current students?

Learn from nature, rocks are shaped from constantly being hit by the wind and the water.

No matter whether it is studying or working, always understand how the system works first, then work hard and smart on it.

DR. RAJEEV VIKRAM

TIGP MMP 2020

(ADVISOR: DR. CHEN-YANG SHEN)



In your opinion, what do you feel is the most important factor(s) leading to your success in graduating from TIGP?

I will list some words which sound like motivational buzzwords but have a contextually implied meaning. 1. Interest: Deep interest and passion in my chosen field of research. 2. Inquisitiveness : Ability to ask insightful and pertinent questions. 3. Determination and Perseverance: The ability to stand up and try again in the face of failures. 4. Communication: Good and clear communication with the supervisor about goals and expectations. 5. Work-life balance: interaction with friends and family every week, some physical activity like sports or gym and traveling once in a while keeps the stress at bay.

Professional Experience

2020 - Present: Post Doctoral Fellow, IBMS

What was the best advice given to you during your PhD?

The best piece of advice which I consider has helped me immensely during my PhD, came from my Masters advisor Dr. David C. Hughes. Once discussing my experimental results which were contrary to some published works, he told me “Remember, only data that you should trust is the one generated by you.“. During my PhD, whenever I got confused by contradictions in the published literature, I always focussed on what my experimental results were indicating.

How did you decide on your future career pathway after your PhD?

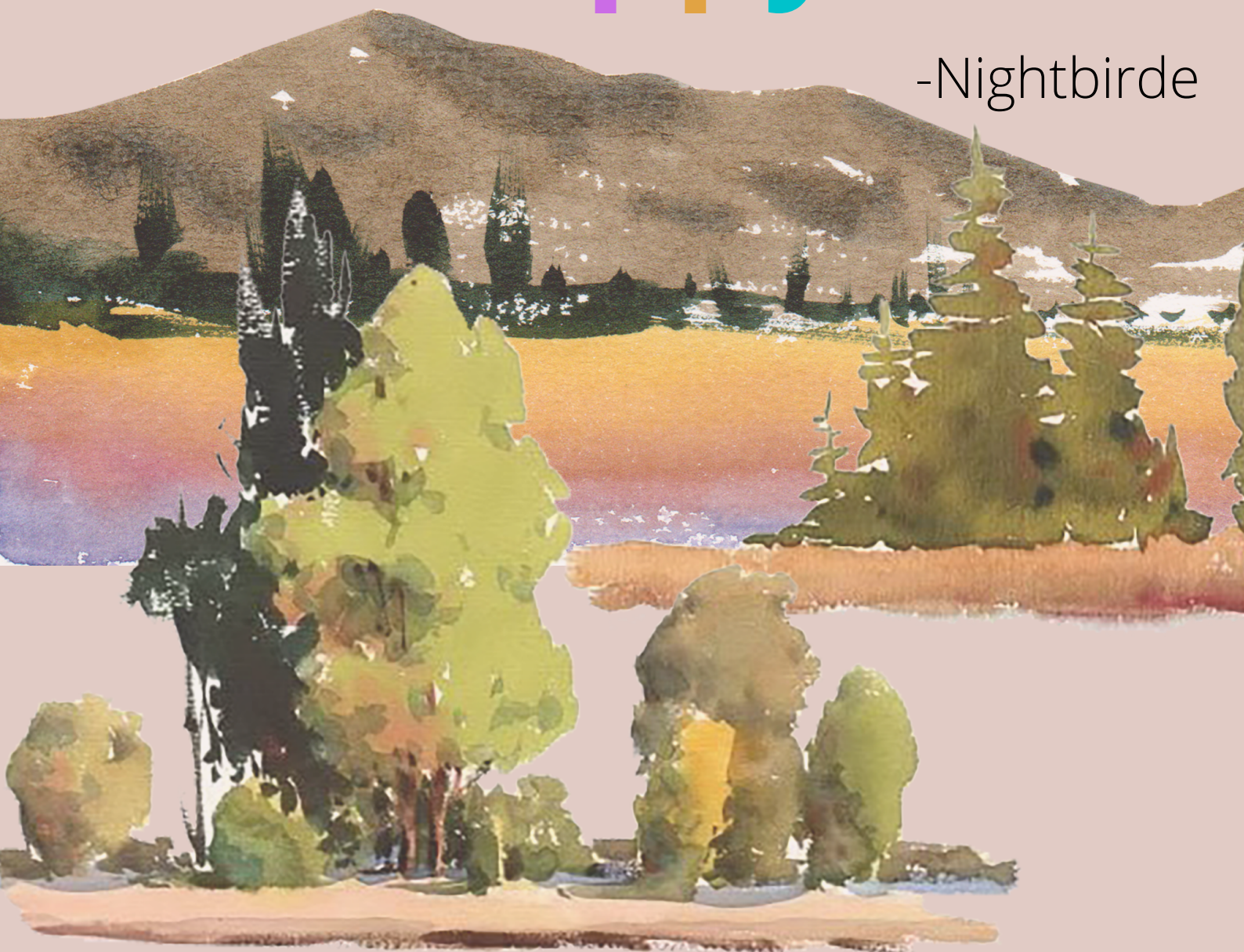
There are 2 basic pathways after PhD: Academic and Industrial. As I am interested in pursuing a career as an independent researcher in translational cancer research, I chose to pursue postdoctoral research in the field .

What additional advice do you have for current students?

Do not get stressed out by techniques and technicalities, focus on developing a strong research design and experimental procedure to answer your research question and everything will fall in place.

You can't wait
until life isn't
hard anymore
before you
decide to be
happy

-Nightbirde





Your mind matters!

by Dr Bernard Chuong Hock Ting

PhD journey is never a smooth sailing. Things may happen from time to time and we may respond to the hurdles in different ways. You can be positive and want to work harder. You can be feeling lonely and overwhelmed. You may also feel upset, agitated, or even angry. Sometimes, it is really hard to bear with negative emotions that you see no light at the end of the tunnel. You may feel hopeless and start to ponder the value of your work and your life. If these had crossed your mind, you are not alone! Try to listen to what your mind and your body trying to tell you. Do not ignore the signals that your mind is trying to convey to you. It could mean that you just really care about what you are doing.

Care for your mind

Some stress will motivate you to your maximum performance. However, when this stress exceeds your limits, it could lead to impairment and incapacitating. Therefore, it is important to recognize the features of your distress and take prompt action to maintain your mental health.





Practical Tips

Acknowledge your feelings if you are in distress. Press the “Pause” button (Rest) and allow yourself to understand what your emotion is trying to tell you (Reflect). Emotions comes and goes. Remember, you are not actually your emotion. It is just something that you experience and you could regulate it.

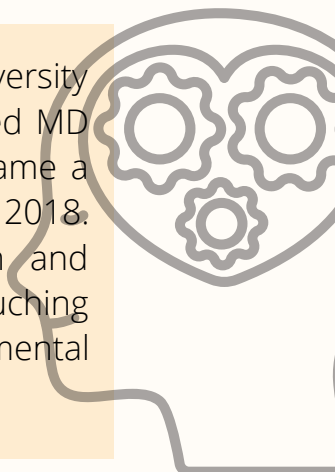
PLEASE yourself - Treat **P**hysical **i**llness if any (including mental health problems), **E**at balanced meals, **A**void mood-altering drugs and alcohol (they bring more harm than benefits), get enough **S**leep every day, and do adequate **E**xercise.

Break down your tasks into smaller parts that are easier to handle. Focus on one small thing at a time. When you are able to accomplish different small goals, the sense of achievement would override the sense of being overwhelmed.

Talk to friends and family that you can trust. Many people prefer to keep things to themselves to avoid passing the negativity to others. Indeed, when you share your difficult emotions with trusted people, you could feel a sense of relief and receive support from your loved ones.

Get professional help. If you had tried some self-help measures, and you are still struggling with emotions, it is essential to find professional help. It could be a counselling service or other mental health service that is available in your campus.

Dr Bernard Chuong Hock Ting is a medical lecturer in University Malaysia Sarawak and also a visiting psychiatrist. He obtained MD from University Kebangsaan Malaysia in year 2010 and became a Member of Royal College of Psychiatrists, UK in year 2018. Currently, he is also a PhD candidate in Public health and Community Medicine. He is the secretary of Befrienders Kuching and actively involves in research on building resilience and mental health literacy among the public.





DIFFICULT ROADS OFTEN LEAD TO BEAUTIFUL DESTINATIONS

Sincerely from TIGP MMP 2020 Intake

Edited & Designed by

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