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UNIVERSITY OF OXFORD

OSCAR

NEWSLETTER 045 APRIL 2021

Contents

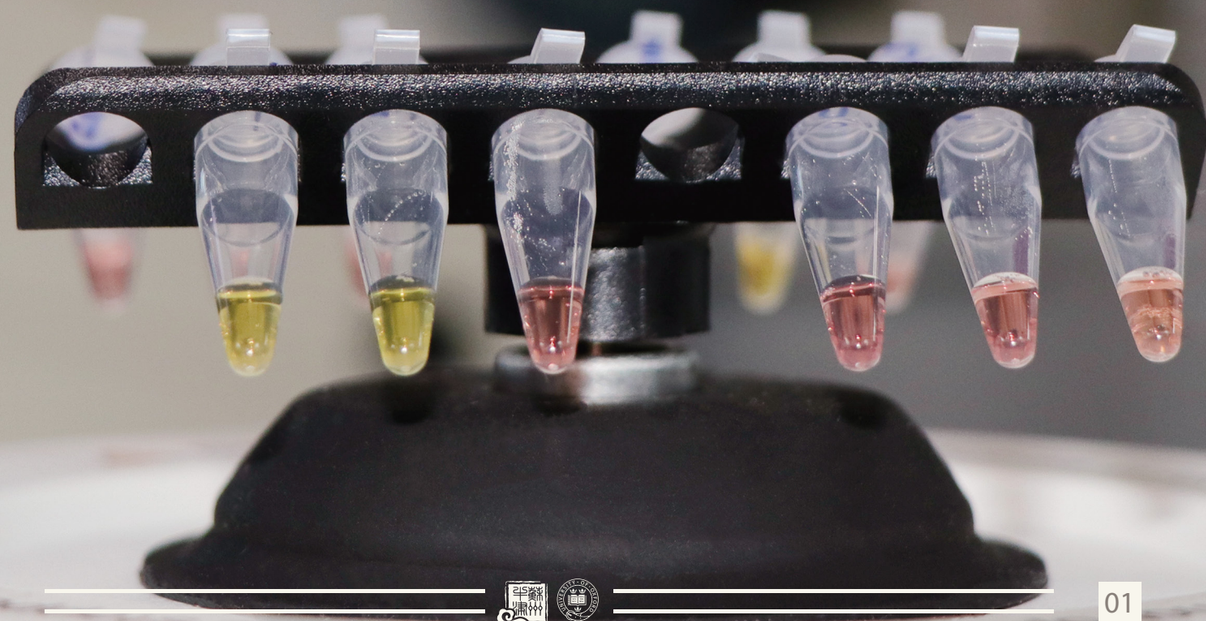
Prenetics™ sponsors laboratory for advanced molecular diagnostics at OSCAR with $1m grant

Prenetics Limited, Oxford University and Oxford Suzhou Centre for Advanced Research (OSCAR) signed multi-million-dollar collaboration agreements in April to further develop OxLAMP™ technology, an award-winning, rapid, molecular testing technology for infectious diseases.

Following the successful acquisition and commercialisation in October 2020 by Prenetics of Oxsed, OSCAR's first spin-out company derived from OxLAMP™ technology, OSCAR and Prenetics have furthered their partnership and entered a deeper long-term scientific collaboration, with Prenetics providing a $1m USD grant to support a new Prenetics Innovation Technology Centre (ITC) for Advanced Molecular Diagnostics at OSCAR. This ITC will advance molecular diagnostic testing for global unmet needs.

Prenetics ITC for Advanced Molecular Diagnostics

The COVID-19 pandemic has primed the market with greater awareness and interest in diagnostic tests. The Prenetics-sponsored laboratory at OSCAR will



capitalise on this momentum and its previous successes to create platform technologies to diagnose infectious disease, cancers, diabetes, malaria and other conditions, as well as diversifying into detection of additives, antibiotics, heavy metals and toxic compounds. This has myriad applications across multiple industries including food safety and environmental science.

This laboratory will bring together researchers in bio-sensing, clinical virology, microbiology and medical devices from across academia, industry and the clinic to undertake need-driven, close-to-market research.

The Prenetics ITC for Molecular Diagnostics is directed by Prof. Wei Huang, PI of OSCAR's Synthetic Biology group and Associate Professor at the University of Oxford's Department of Engineering Science. His team will include a leading microbiologist and molecular biologists, and other OSCAR PIs including Oxsed co-Founder Prof. Zhanfeng Cui. The research will be steered by OSCAR Visiting Professor Dr. Monique Andersson, a leading clinical virologist, OSCAR Visiting Academician Prof. Jon Cooper, a lab-on-a-chip expert with a track record of in vitro diagnostic development, and OSCAR Visiting Industry Fellow Dr. Hong Chang, a highly experienced researcher in medical devices and in vitro diagnostic technologies with particular expertise in regulatory affairs and commercialisation.

Director

OSCAR Principal Investigator: Prof. Wei Huang

- OSCAR Principal Investigator in Synthetic Biology and Single Cell Biotechnology
- Associate Professor at the Department of Engineering Science, University of Oxford
- EPSRC Fellowship in Synthetic Biology
- Visiting Professor at Beijing Normal University, Beijing Genomic Institute, and the Chinese Academy of Sciences

Members

OSCAR Principal Investigator: Prof. Zhanfeng Cui CEng CSci FIChemE FAIMBRE FREng

- Donald Pollock Professor of Chemical Engineering, Oxford
- Director of Strategic Projects (China), MPLS Division
- Director, JITRI IMPACT Institute at the University of Oxford
- OSCAR Founding Director
- Academic Founder of 5 spin-out companies

OSCAR Visiting Academician: Prof. Jonathan Cooper FREng FRSE

- Wolfson Chair in Bioengineering and Emeritus Vice Principal, University of Glasgow
- Fellow of the Royal Society of Edinburgh and the Royal Academy of Engineering
- EPSRC Research Fellow
- Academic Founder of 3 spin-out companies in medical products and devices
- Internationally regarded expert in 'lab-on-a-chip' research

OSCAR Visiting Professor: Dr. Monique Andersson

- Director, Medical Microbiology Laboratory, Oxford University Hospitals NHS Foundation Trust
- Honorary Senior Clinical Lecturer in Microbiology, University of Oxford
- Extraordinary Associate Professor of Medical Virology, University of Stellenbosch
- Clinical Lead, Infections in Pregnancy, Oxford University Hospitals NHS Foundation Trust
- Lead Researcher, Oxford Martin Programme on Antimicrobial Resistance Testing

OSCAR Visiting Industrial Fellow: Dr. Hong Chang

- COO of Oxford MEStar Ltd., a spinout of University of Oxford
- OSCAR's first visiting industrial fellow

Prenetics is a leading genetics and diagnostic health testing company, operational in 10 countries with a team of over 400. Prenetics has received over $60 million USD in strategic funding from Alibaba Hong Kong Entrepreneurs Fund, Ping An Ventures, Apis Partners and more. In Hong Kong, Prenetics was the first private laboratory to have been appointed by the Hong Kong government for mass community testing. For more information, visit https://prenetics.com.

Professor Zhanfeng Cui, Donald Pollock Professor of Chemical Engineering at Oxford University / Founding Director at OSCAR said:

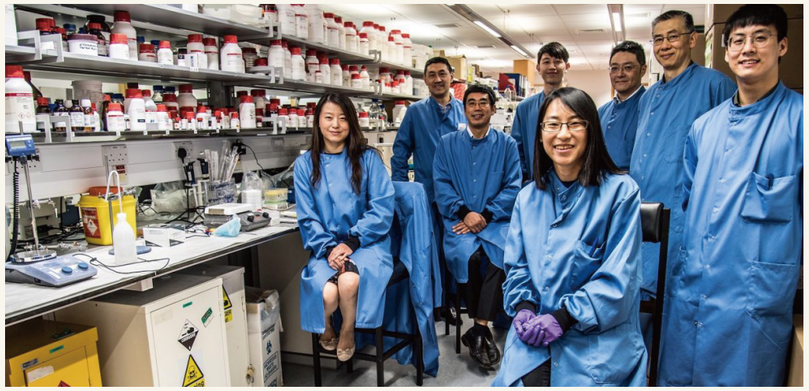
"*The initial collaboration with Prenetics has exceeded all expectations and their team led by Danny Yeung have been highly involved on a daily basis with our scientific developments. We have been impressed! When we think about the future, especially with the pandemic, it's very apparent to us that testing is here to stay with us for years to come. With this in mind, we are excited about the future roadmap in which we develop novel scientific discoveries to aid the World with fast and accurate molecular testing globally. Our goal is to decentralize laboratory testing with rapid, highly accurate, molecular testing, not just for Covid-19 but for all infectious diseases. I'm confident we can succeed in our mission with Prenetics.*"

Danny Yeung, Co-Founder and Group CEO of Prenetics, said:

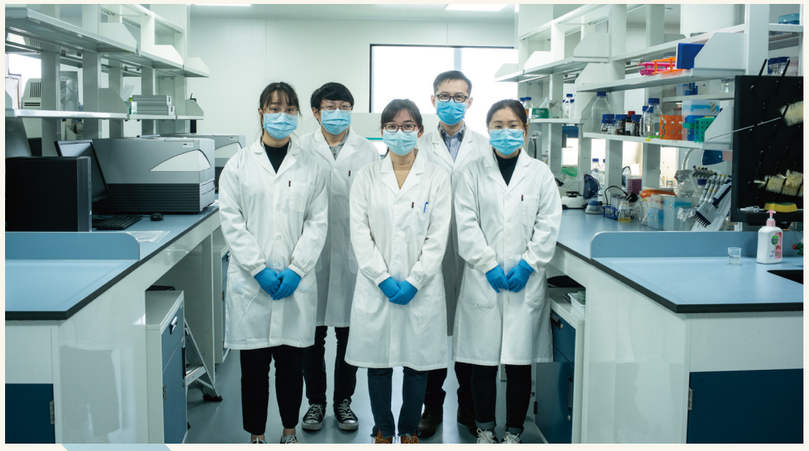
"*Our new collaboration with Oxford University and OSCAR is our commitment to continually invest in R&D and by establishing our own Innovation Technology Centre, we believe it will have profound breakthroughs in molecular diagnostics. We also expect more top researchers to be based in Suzhou and in Oxford over the next 3 years into our technology centre. The Oxford team of professors has been amazing and I'm truly excited with our molecular diagnostic pipeline and the opportunity to decentralize laboratory testing globally.*"

OxLAMP™ Technology

In late January 2020, observing a lack of testing available at travel hubs, Prof Cui, Prof. Huang and their research teams at OSCAR and at the University of Oxford came together to create an engineering solution to fight the coronavirus pandemic. In just a few months, the team developed a rapid, portable and cost-effective test kit, based on patented OxLAMP™ technology, for COVID-19 that demonstrated excellent sensitivity and specificity, and can give clear results in as little as 15 minutes. The work was reported across the globe, and in August 2020 the team was awarded a prestigious Royal Academy of Engineering President's Special Award for Pandemic Service.



Prof. Cui, Prof. Huang and the UK team at the Oxford lab.



The Suzhou-based OSCAR team, led by Prof. Cui and Prof. Huang, in their lab at OSCAR.

1.5m COVID-19 tests performed using RT-LAMP kit under "Project Screen"

In October 2020, Prenetics acquired Oxford-OSCAR spinout Oxsed Ltd. To date, Prenetics have conducted over 1.5m COVID-19 tests using the rapid RT-LAMP kit developed by the joint Oxford-OSCAR team, now known as 'Project Screen'. Clients include the UK government, the Hong Kong government and multiple international airports. Last year Prenetics signed a 40,000-test contract to screen English Premier League football players and staff, which was instrumental in allowing English Premier League football matches to resume. The tests are used in airports across the UK for pre-departure screening as an approved test under the UK government's Test-to-Release scheme to support international travel, and at Hong Kong International Airport.

Prenetics ITC of Molecular Diagnostics offers job opportunities

The collaboration between OSCAR and Prenetics has also made available nine job vacancies at the ITC for the positions of Research Engineer, Research Scientist and Senior Research Scientist. Potential applicants are expected to have experience in at least one of the following:

- Clinical microbiology/virology
- Molecular biology
- Bioinformatics
- Immunology/lateral flow test
- Lab-on-a-chip/microfluidics
- Biochemistry/enzymology
- Medical device design and prototyping
- IVD Regulatory affairs

Detailed job descriptions, application procedures and deadlines can be found on OSCAR's website at https://oscar.web.ox.ac.uk/research-0.
For academic inquiry please contact the Prenetics ITC Director Prof Wei Huang: wei.huang@eng.ox.ac.uk.
For informal enquiries and application, please contact HR: info@oxford-oscar.cn.

Recent OSCAR Publications

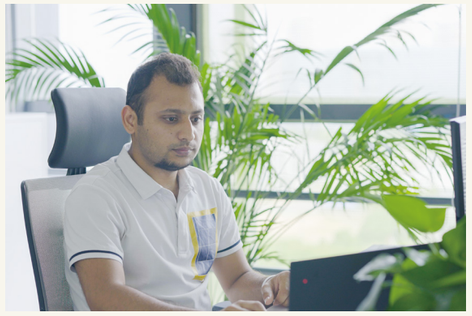
Prof. David Clifton, PI of OSCAR's Digital Health group, authored two recent papers, regarding the use of real-time data capture to remotely monitor COVID-19 patients in under-resourced regions, with collaborators in Oxford and Vietnam. The work was led by the Hospital for Tropical Diseases and the Oxford University Clinical Research Unit in Ho Chi Minh City, Vietnam, with engineering input from the University of Oxford's Institute of Biomedical Engineering and Centre for Tropical Medicine and Global Health.

In these papers, the teams proposed and piloted a low-cost wearable device for remote monitoring of patients' vital signs with particular focus on COVID-19 patients. Such a device would enable real-time signal capture and facilitate more effective and efficient decision making and resource allocation for patients in isolated or resource-restricted areas.

The papers are available online and in print:

Chau, N.V.V., Hai, H.B., Greeff, H., Quoc, K.P.N., Trieu, H.T., Nguyen, C.N., Van, H.M.T., Yen, L.M., Dung, N.T., Clifton, D.C. and Yacoub, S. (2021). Wearable remote monitoring for patients with COVID-19 in low-resource settings: case study. BMJ Innovations 7: s12-s15.

Van, H.M.T., Hao, N.V., Quoc, K.P.N., Hai, H.B., Khoa, L.D.V., Yen, L.M., Nhat, P.T.H., Duong, H.T.H., Thuy, D.B., Zhu, T., Greeff, H., Clifton, D.C. and Thwaites, C.L. (2021). Vital sign monitoring using wearable devices in a Vietnamese intensive care unit. BMJ Innovations 7: suppl. 1.



Dr. Muhammad Kamran Khan,

Research Scientist in Prof. Mark Moloney's surface chemistry group, is the joint corresponding author of a new paper examining the potential of silver nanoparticles in reducing concentrations of lipoproteins and reversing diabetes in mice. The research was undertaken by researchers from Hazara University and the University of Malakand in Pakistan, the University of Hail in Saudi Arabia and the University of Science and Technology China (USTC) and the CAS Key Laboratory of Nano-Bio Interface at the Suzhou Institute of Nano-Tech and Nano-Bionics, CAS in China.

The study describes the synthesis of silver nanoparticles from the leaves of *Emblica phyllanthus*, a technique which is both environmentally friendly and cost-effective. The silver nanoparticles were characterised by a variety of techniques including SEM, AFM, XRD and UV-Vis spectrometry before being tested in diabetic mice.

Mice were treated with concentrations (150mM or 300mM) and sizes of silver nanoparticles or Glibenclamide, a medication used to treat type 2 diabetes mellitus. The group found that their 'green' silver nanoparticles were able to induce a significant reduction in blood glucose level compared to untreated diabetic mice. At optimum dosage, they demonstrated superior reduction to that achieved with Glibenclamide (from 280.83 ± 4.17 to 151.17 ± 3.54 mg/dL with nanoparticles compared with 265.5 ± 1.43 to 192 ± 3.4 mg/dL with the medication). Furthermore, the group demonstrated that silver nanoparticles and *E. phyllanthus* extracts also showed significant effects on liver and renal functions of diabetic mice.

The paper is available to read online and in print:

Ullah, S., Shah, S.W.A., Qureshi, M.T., Hussain, Z., Ullah, I., Kalsoom, U.E., Rahim, S.S.U., Sultana, N., and Khan, M.K. (2021). Antidiabetic and hypolipidemic potential of green AgNPs against diabetic mice. ACS Applied Bio Materials 4(4): 3433-3442.

OSCAR hosts matchmaking event for innovative biomedical projects

On 15th April, OSCAR opened to biomedical businesses in a matchmaking event designed to bridge the biomedical industry and the innovative research undertaken by OSCAR researchers. The event, co-hosted by Jiangsu Industrial Technology Research Institute (JITRI) and SIP Business Development Service Centre, attracted more than 50 business representatives who are eager to seek innovative biomedical solutions.

OSCAR Director Prof. Zhanfeng Cui addressed event attendees in a pre-recorded video. He said that he would like to see the industry posing the question of "what can OSCAR do for us" to create deeper engagement. Dr. Paul Burrows, Vice President of JITRI, attended the event via virtual link.

The event featured presentations by six researchers, including two given online from the U.K., with specialities in protein engineering of cytochrome P450, digital health, biomedical engineering, molecular diagnosis and biomedical acoustics. Guests were informed of the technological sticking points that OSCAR is working to address, and what solutions are currently available.

Speaker: Dr. Yang Cao, Research Scientist in Prof. Luet Wong's group

Speaker: Dr. Yang Yang, Senior Research Scientist in Prof. David Clifton's group

Speaker: Dr. Yun Wang, Senior Research Scientist in Prof. Wei Huang's group

Speaker: Rui Lei, Oxford University visiting student in Professors Zhanfeng Cui and Cathy Ye's group

Guests network with OSCAR researchers at the event

Speakers Dr. Huidong Jia, and Dr. Ng Chun Kiat join the event via video link

In seeking possible complementary research and commercialisation, business representatives talked about their biomedical products, R&D platforms and R&D activities. One business executive said that they would be happy to see corporate resources working hand in hand with the academic community.

The event provided a great opportunity for researchers to showcase their work to a most relevant audience and start practical conversations on potential partnerships. Such events are part of OSCAR's efforts to accelerate technology transfer, which is at the centre of OSCAR's second phase of development.

OSCAR Academic Seminar Series: Preserving life to save lives

OSCAR's spring seminar took place on Friday 23rd April, with a special extended guest lecture from OSCAR Visiting Academician Professor Nigel Slater. Entitled "Preserving life to save lives", the lecture focused on his extensive work enabling live cell therapies and was well attended by OSCAR staff in Suzhou and colleagues and collaborators joining remotely from the UK. Prof. Slater's talk covered two different aspects of his research: firstly, the use of microbial systems for oral delivery of vaccines, and secondly, cryopreservation of mammalian cells for use in regenerative therapies.

Traditionally, many vaccines are in liquid form and are delivered by needle. Manufacturing involves a lengthy and complicated process of formulation and purification, and they must also be refrigerated from point of manufacture right through to injection. They are expensive and time-consuming to manufacture, store and transport which creates additional pressure and logistical challenge particularly for developing countries. Prof. Slater and his team envisaged a solution whereby a dried vaccine tablet could be ingested orally, thereby removing the need for cold-chain logistics and needles. Using attenuated bacteria, such as Salmonella, to carry plasmids to antigen-presenting cells in the gut could create an immune response with a simple 'vaccine tablet'. However, Prof. Slater discussed the challenge in protecting the bacteria on its journey through the digestive tract, which is specially designed to guard against foreign microbes. The researchers therefore turned their attention to 'friendly' bacteria or probiotics, and developed a coating that would protect the vaccine-carrying bacteria until its arrival in the gut. There, the bacteria hydrates as the coating dissolves, thus activating it on its arrival to the antigen-presenting cells and enabling the production of proteins to elicit an immune response. As we are seeing during the COVID-vaccination efforts, the ability to reduce the cost, increase the transport and storage potential and remove cold-chain from vaccine delivery is of huge importance to global health, most particularly in rural or other resource-poor areas.

In the second part of his lecture, Prof. Slater focused on his work to improve bio-preservation of mammalian cells, by looking at delivery of active agents into cells using biopolymers capable of permeabilising cell membranes. Having already developed biopolymers to deliver DNA, RNA and other small proteins and small molecules into cells, Prof. Slater and his team turned their attention to stabilising cells during cryopreservation. Currently, a polar solvent DMSO is widely used during cryopreservation – it mitigates against solution effects, mechanical stress and biochemical damage to cells during freezing, storage and thawing. However, it is highly toxic to cells and demonstrates other negative effects.

The team identified a non-toxic disaccharide as an excipient that displayed a number of interesting properties that allow it to protect structures during drying. However, because it is very hydrophilic it requires a carrier to transport it across the cell membrane. Prof. Slater described work to identify and refine systems where biopolymer cell permeating agents were used to transport the excipient into cells, which ultimately led to an almost 11-fold increase in cellular cryo-survival. He then presented evidence that the technology could support cell therapies to effect bone regeneration, for example in fracture non-unions and bone defects. This exciting research has huge potential to increase the use, utility and efficacy of a range of regenerative medicine therapies.

The lecture generated lively discussion among fellow researchers in the biotechnology sector and generated ideas for future collaborations, including a forthcoming ITC at OSCAR. With his expertise in creating practical solutions for cell therapies, Prof. Slater is a natural partner for OSCAR's biomedical, synthetic biology and biotechnology research for ensuring real-world utility to maximise clinical and social impact.

Prof. Nigel Slater FREng CEng FIChemE is an Emeritus Professor of the University of Cambridge, a Life Fellow and former President of Fitzwilliam College and a Fellow of the Royal Academy of Engineering. He was formerly Pro-Vice Chancellor for Enterprise and Regional Affairs and Head of the Department of Chemical Engineering and Biotechnology at Cambridge.

His career has focussed on the manufacture and formulation of biopharmaceuticals and gene therapeutics, on which he has published over 190 articles in high impact journals. He has managed bioprocessing for Unilever Research in the Netherlands and Wellcome Research in the UK. Prof. Slater's research interest lies in the manufacture and formulation of biopharmaceuticals including therapeutic proteins, DNA, viruses and cells. He also researches procedures to improve the preservation of cells, especially pancreatic islets for the treatment of diabetes.

OSCAR gives lecture to research staff on fundamentals of IP protection in China

The importance of intellectual property right protection cannot be emphasised enough when it comes to translating innovative research into commercially viable business propositions. IP protection is particularly critical for OSCAR as it serves as University of Oxford's campus in China for international level research and development in sciences.

On April 1st, OSCAR research staff took part in an in-house lecture, delivered by OSCAR's Research Cooperation Section, on IP protection. The lecture was designed to introduce the fundamentals of intellectual property rights and build awareness in the research staff of how the patent system can be incorporated into their day-to-day research activities.

At the lecture, OSCAR's IP & Technology Manager Yechen Gui discussed the role of the IP system in transforming research outputs into industrial applications from the researchers' perspective. She also provided contextualised explanations on how OSCAR initiates an intellectual property activity, ways in which IP is useful, moves to take, and the risks involved in the patenting process. Research group-specific IP questions raised during the lecture were addressed.

Anyone engaged in innovative activities faces risks because it is impossible to predict the performance of a new product in the market. A researcher must be able to prove that they have done everything possible to eliminate marketing risks. This means not only risks taken by the researcher themselves, but also the risk taken by potential investors, licensees, and business partners. If the researcher shows a positive attitude towards risk mitigation, they are more likely to attract financing and endorsement. Many inventions derived from scientific research innovations failed because they could not obtain effective intellectual property protection. Effective intellectual property protection not only means a reasonable assessment of the feasibility, creativity, and commercialisation of the invention, but it also facilitates patent licensing and technology transfer, and can even increase negotiating leverage when it comes to setting up a spin-off company.

Supporting staff with professional and research training like this plays an important role in the preparing for OSCAR's future endeavours and ensuring that researchers have the tools to maximise the impact of their research.

Meet OSCAR's New Researchers

Jie Lin
Senior Research Scientist in Prof. Paul Stavrinou's group

Dr. Jie Lin joined OSCAR in April 2021 as a Senior Research Scientist in Professor Paul Stavrinou's Optoelectronic Technology Laboratory (OeTL). He received his bachelor's degree in Electronics Science and Technology from Jilin University, and Ph.D. from the Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP), Chinese Academy of Sciences (CAS). After completing his doctoral study, Dr. Lin joined the State Key Laboratory of Luminescence and Applications (SKLA) and worked there until March 2021.

He focuses on the research of microcavity organic/nanodevices and physics and is committed to constructing an optical resonant cavity suitable for high-efficiency electrical injection based on amorphous thin film devices. In particular, his research aims at the development of electrically pumped microcavity laser based on amorphous thin film.

Novel amorphous thin film devices include but are not limited to organic, colloidal quantum dots and perovskite. Being at the frontier of research into semiconductor optoelectronics, novel amorphous thin film devices have countless advantages and find applications in flexible/wearable devices, intelligent optical interconnection, biomedical science and so on. However, novel amorphous thin film devices are mainly applied in the field of lighting and display. The fundamental reason is that their spectral linewidth is difficult to meet the requirements of integration with other optoelectronic devices. Therefore, an important research direction of our team will be striving to develop high-quality light sources that meet the requirements of integration using new design theories. It is of great scientific significance and commercial value to obtain such kinds of devices.

During his 13 years of successful research activities, Dr. Lin has published 30 peer-reviewed research articles in Nat. Commun., Adv. Opt. Mater., ACS Appl. Mater. Interfaces, Nanoscale, Sci. Bull. etc. He has also obtained 4 patents, and led many successful research projects, including projects supported by the National Natural Science Foundation of China, major Innovation Program of CAS, and the key project of Jilin Province Science and Technology Research Project.

Liang Zhao
Research Scientist in Prof. Zhongmin Qian's group

Dr. Liang Zhao joined OSCAR in April as the first Research Scientist in Prof. Zhongmin Qian's mathematics group. He earned his PhD degree in 2020 at the School of Mathematical Sciences, Shanghai Jiao Tong University. His former research focused on the well-posedness and singular limit problems of models of partial differential equations in semiconductors and plasma physics. During his PhD study, he spent two years as a joint-PhD student in Université Clermont Auvergne, France, under the supervision of Prof. Yue-Jun Peng.

" It is a great honour for me to join the big OSCAR family here," Liang said, "OSCAR is a great place to carry out research with a nice environment, pleasant atmosphere and very professional research groups." Dr. Liang previously showed great interest in the well-posedness theories of some partial differential equations (PDE) in fluid mechanics. A system of partial differential equations (PDE) are said to be well-posed, if the system admits a unique solution which is continously dependent on the initial data and the source term. The study of the well-posedness of an equation system is to prove that there exists a solution which is stable and differs little if the initial data and the source term perturb a little. Although these topics and his results obtained are of great theoretical meaning, the methods he used are not always applicable for any given models. "Some PDE models, which are of great application prospect, are most of the time very complicated. And consequently, classical methods are no longer applicable or too complicated to use. That is the main reason that I want to find other modern methods to solve classical problems." Liang said.

At OSCAR, Liang will use various methods to solve some PDE problems. There are already some attempts, for example, numerical methods such as using the difference quotient to approximate the derivatives in PDE models. Another method is called operator learning. For a certain kind of PDE, the nonlinear iteration functions can be 'learned' from training sets such that for later works, once the initial data is given, the computer can be relied upon to give an approximate solution of the PDE. Also, in some cases, stochastic analysis may give us some weak solutions of PDEs. At OSCAR, Liang intends to apply these new methods to some mathematical finance problems, which are of great potential application. "The applications of all of these new methods require an advanced hardware and software support, such as better CPUs and GPUs, and OSCAR is just the ideal place! I feel very lucky that I've found this excellent place, and I'm very confident of the upcoming three-year career in OSCAR." said Liang.

Xianglin Ji
Research Assistant in Prof. Wei Huang's group

Xianglin Ji joined OSCAR on April 1st, 2021 as a Research Assistant in Prof. Wei Huang's group. In 2015, he graduated from the Hong Kong University of Science and Technology with an MPhil degree in Life Science. He studied nutrient dependent turnover of lipid droplet associated proteins in C. elegans with CRISPR/CAS 9 gene editing technology and other molecular biology methods.

Xianglin has 4 years' work experience in industry. He joined CoWin Biosciences as a research and development project leader in 2016. There, he developed molecular diagnostics related kits to help cancer early detection. He then joined GENEWIZ as a senior project manager in the gene editing division, where he utilized the CRISPR/CAS 9 system to provide gene editing services to clients from both the academic and industrial fields.

"It is really exciting for me to join Prof. Huang's group at OSCAR," Xianglin says. "The research environment here is very active and stimulating. Part of my research focus is molecular diagnostics, including cancer early detection. We use cutting-edge molecular diagnostics technologies to develop detection kits that are both fast and precise. Particularly, I am very proud to participate in the further development of the COVID-19 rapid test kit. This project has made great contribution to countless people all over the world. My work will also focus on the application of biosensor. I will make my best effort to make OSCAR better."

Outreach and Collaboration

OSCAR's OeTL and ESC Lab initiated comprehensive academic exchange and cooperation programme with FUNSOM, Soochow University

On 15th and 16th April, OSCAR's Optoelectronic Technology Laboratory (OeTL) and Energy Storage and Conversion Laboratory (ESC Lab) jointly held two half-day events at OSCAR with Prof. Zhenhui Kang's research group from the Institute of Functional Nano & Soft Materials (FUNSOM), Soochow University.

Prof. Kang and his guests, including Prof. Mingwang Shao and Prof. Qi Shao, visited both the OeTL and ESC laboratories located on the 9th floor at OSCAR. Dr. Jingsong Huang, Co-PI of OeTL, and Research Scientists Dr. Jerry Liu and Dr. Chenbo Wang of ESC Lab introduced their fields of study and research interests to the visitors.

The event featured a special workshop intended to deepen mutual understanding and advance potential collaborations. It featured three invited talks by Mr. Xiao Wang, a second-year PhD student of FUNSOM, speaking about single-crystalline carbon nanodots (CNDs); Prof. Qi Shao (FUNSOM) on the design and application of metastable alloys electrocatalysts, and Dr. Jie Lin, Senior Research Scientist of OeTL, discussing amorphous thin-film light-emitting and laser diodes. After the presentations and discussion, both sides agreed on an initial collaboration based on CNDs material for OLEDs/laser diodes application at OeTL. Topics of further collaboration in exchange of personnel and joint applications for funding were also discussed.

OSCAR joins visit to University of Science and Technology of China

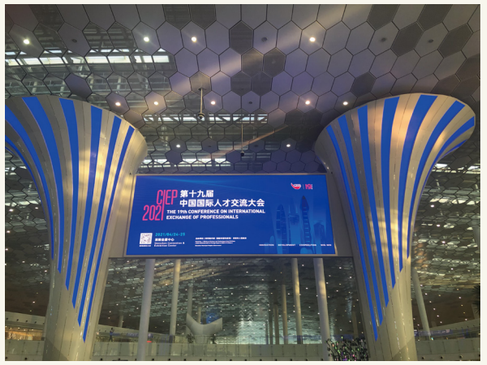
As a member of the Suzhou Dushu Lake Universities and Colleges Development Union, OSCAR was invited to a group visit to University of Science and Technology of China (USTC) and its advanced research centre in Hefei, Anhui Province. The trip, sponsored by the Administrative Committee of Science, Education and Innovation District (SEID) and USTC Suzhou Research Institute, took visitors to the campus of USTC with its national-level laboratories, the Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP) and Hefei High-tech Zone during an immersive two-day visit on the 14th and 15th April.

Members of the Suzhou Dushu Lake Universities and Colleges Development Union at the Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP).

Founded in September 1978 to enable peaceful utilisation of fusion energy based on the tokamak approach, ASIPP is one of the most important laboratories on magnetically confined fusion in China.

ASIPP has successfully built tokamak "HT-6B", "HT-6M", and the first superconducting tokamak in China of "HT-7", as well as "EAST", the world's first non-circle cross-section full superconducting tokamak.

OSCAR invited to Shenzhen Forum for the 19th Conference on International Exchange of Professionals



OSCAR was invited by the Suzhou Association of Industrial Park Development Promotion group to participate in the 19th Conference on International Exchange of Professionals (CIEP) held in Shenzhen from 24th to 25th April.

The annual conference, which launched in 2001, is China's largest and highest-level gathering of Chinese and international talents. This year, the conference focused on offline venues for sci-tech-themed exhibitions, talent recruiting. Its themed events attracted 1,200 professional institutions and organizations as well as over 10,000 government representatives, experts and high-end talents from more than 30 countries and regions.

OSCAR made its debut at the conference as an exhibitor of the event's talent recruitment and international sci-tech innovation exchange sections. During the two-day conference, OSCAR particularly caught the eyes of international talents from China's Guangdong-Hong Kong-Macao Greater Bay Area, known for its diverse array of talents and the mission to drive technological development. OSCAR also engaged in discussions regarding commercialistion of innovative research outputs with multiple universities and technology transfer agencies, including Hong Kong University of Science and Technology, Chinese Academy of Sciences, Sino-British Society for Cultural and Technological Exchange, and Oxentia, Oxford's Global Innovation Consultancy.

OSCAR HR Specialist Miaoqing Shen (L) and IP & Technology Manager Yechen Gui attend the conference

SIP News for April

XJTLU- JITRI Academy of Industrial Technology founded

Xi'an Jiaotong-Liverpool University (XJTLU), a cooperative university founded by China's Xi'an Jiaotong University, the UK's University of Liverpool in SIP, and Jiangsu Industrial Technology Research Institute (JITRI), jointly inaugurated XJTLU-JITRI Academy of Industrial Technology in SIP on 9th April.

The academy aims to cultivate innovative talents for industries with cross-disciplinary educational background and the competence to lead future developments. Moreover, it will explore a new education ecosystem with high-level integration of industrial needs, education and research.

The academy will start enrollment of master's and doctoral candidates later this year based on industrial needs, with plans to increase admissions year by year. It adopts an application-based admission system aligned with international norms, and students will receive degree certificates from the University of Liverpool upon graduation. In addition to supervisors from XJTLU, researchers from JITRI and professionals from industrial sectors will join the faculty.
The academy will be engaged in propelling research collaboration between XJTLU and JITRI in advanced materials, eco-friendly products, information technology, high-end equipment, biomedicine, among other subjects, and accelerating commercialisation of related research findings.

XJTLU- JITRI Academy of Industrial Technology founded. SIP News. Retrieved 13 April, 2021, from SIP's website.
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