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'We will win this fight against Covid,' says Kamran Khan to a local media outlet, fully clad in white protective overalls, offering words of encouragement and rallying the expatriate community to play their parts to overcome the pandemic. He has been volunteering for many hours to assist a team in carrying out nucleic acid testing at residential quarters since a new wave of Covid-19 hit Suzhou in early February.



Khan is from Pakistan and is currently a Research Scientist in OSCAR's Surface Chemistry research group led by Prof. Mark Moloney. According to Khan, he feels he should do something in return for the support and kindness he has received from the Chinese people since he arrived in this country. That's why in this testing time to contain the new outbreak, Khan consciously decides not to leave China but stays behind to join local pandemic control efforts and help the people in his community.



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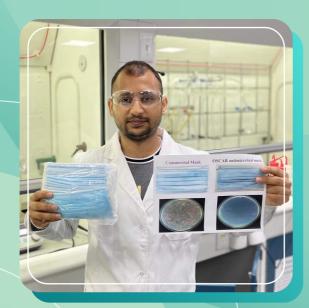
In 2013, inspired by the friendship held between Pakistan and China, Khan chose China as the hosts for his doctorate studies. He obtained his doctorate from the Chinese Academy of Sciences and gained post-doctoral research experience from Tsinghua University. In 2018, he was offered the opportunity to work in OSCAR.

When he first started in China, Khan's lack of Chinese language proficiency was an

obstacle, he relied heavily on the help of his Chinese colleagues for almost all communication, large and small. In 2016, Khan married a Chinese national, and now has two beautiful children. The bond between Khan and China has grown even stronger, and he has constantly sought to help the Chinese community in return.

In fact, Khan already did so in early 2020 when the Covid-19 pandemic first befell China, as a white-clad researcher in the lab.

As a member of the scientific community, Khan wanted to develop a technology that could help protect front-line workers and the wider population against Covid infections. Under the guidance of his research leader, Prof. Mark Moloney, he quickly adjusted the direction of his research, and successfully developed a long-lasting anti-virus nano-coating technology. This technology reduces the risk of infection by exposure to Sars-Cov-2, enabled by its capability for the long-term elimination of a variety of viruses including the novel coronavirus and its variants. The coating can be used in medical protective products (including masks and protective clothing), air purification and



filtration, textiles, plastic products and other surface coated products. On top of that, because of the excellent durability of this coating, some of the disposable items can be replaced at longer intervals and therefore reducing the volume of disposable products going into the landfill.

With his knowledge of antiviral materials, Khan guided his Chinese and foreign friends on how to properly protect themselves and their loved ones. At the start of the pandemic, Khan actively updated his friends, colleagues, and associates on pandemic developments and policy changes.

In the Pakistani community in China, Khan is an active social leader and the 'go-to' person for information and assistance. He arranges cross-cultural gatherings, helping international friends settle into China. Many of his Pakistani friends throughout China contact him for advice or counselling regarding study, employment, health, and the personal difficulties they may be facing living in China.

Khan told me that work is underway to spin-out the anti-viral coating into OSCAR's first company in China. Once commercialized, Khan plans to extend the technology to air filtration, the railway and aviation industries, hospitals, cinemas, and shopping malls. There is also the plan to coat delivery cartons with his antiviral technology to stop the viral transmission. To date, he has achieved good results for the development of antiviral masks, air filtration, aeroplane carpets, curtains, railway, and hospital beddings.



Since he joined OSCAR, Khan has patented 3 technologies in response to the Covid-19 pandemic. Together with his colleagues, he has published 3 papers and has presented his work to over 10 conferences.

Now Khan is settled in Suzhou, China, with his wife and two kids.







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▲ OSCAR's women scientists and operations management professionals

As is becoming a tradition for International Women's Day, in this March issue of our monthly newsletter, OSCAR is taking a moment to celebrate its amazing team of women scientists and professionals who comprise the 'OSCAR' as we know it.

This year, we are focusing in particular on women in OSCAR administration, the often unsung heroes whose excellent work is equally deserving of recognition.

Women in OSCAR Administration: all heroes are not in the spotlight

by Yanting Li, Media and Comms, OSCAR

'But what about women in the OSCAR administration and professional services?' Leah responds as I'm telling her that the new 'OSCAR she says' pieces are being translated for the forthcoming newsletter.

'OSCAR she says' is a communications campaign where our women staff are invited to share insights into their area of expertise and make observations on their experiences of being 'a woman at work'. The 'she says' pieces first appeared in the March 2021 edition of the OSCAR newsletter. Since then, I've written about nine women working in tech at OSCAR. They all exuded a great level of intelligence and energy in the interviews I had with them. Putting their stories together has been both informative and enjoyable.

The 'OSCAR she says' series is available on our website at oscar.web.ox.ac.uk/shesays

'We need to tell the stories of women in administration too. Their names, faces, and the support they are providing to our researchers. All heroes are not in the spotlight you know.' Leah challenges me to think bigger, as she so often does at work, mentoring, but never micromanaging.

Leah is the General Manager. I report to her on OSCAR's publicity plans and arrangements. I can sense from this remark that 'she says' is already getting slightly predictable for her even though it's only the second year we're running it.

'That is the sign for a nerve-wracking writing assignment.' I thought to myself. 'All heroes are not in the spotlight. Hmmm...that's an angle I can work with.'

Most of the time, administrative support exists like a computer programme running in the background. It is rarely in the spotlight but nonetheless indispensable to the smooth functioning of OSCAR and the attainment of the objectives set out in the Centre's Strategic Plan.

I don't know every detail of their work, but I'm more than positive that all of my female colleagues in OSCAR's administration are working with commitment towards providing reliable, first-class support. So, let me do my best and present to you these incredible women, our heroes out of the spotlight.









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'How's the follower number looking today (smiley)?' Miaoqing messaged me while away at an information session. 'Yes, quite some, that was you?' I replied. 'Met a few interested candidates and told them it would be a good idea to follow us on WeChat.' answered Miaoqing. Miaoqing shares a commitment with me to OSCAR's social media presence. 'I'm awestruck you know,' I said jokingly, heartened by the efforts she puts in this cross-cutting job area. I have to give her credit for the visible rise in OSCAR's social media following.

Miaoqing joined OSCAR 12 months ago and was expected to take on responsibilities for recruitment and induction, remuneration and employee welfare, performance evaluation, labour relations, and talent programmes. One does not need further description to see that this is a multi-tasker's job that requires a solid mix of knowledge and skills and is challenging to live up to.

But Miaoging guickly made a difference. Apart from securing an expanding cadre of researchers, she puts in a good amount of time studying the multitude of sometimes perplexing talent programmes, to make the application process more intuitive and efficient for our staff. Equally, she has demonstrated resourcefulness, tact and perseverance in addressing concerns and tricky situations emerging from recruitment and employment.

Human resources management is fundamental to such an intellectual-intensive organisation as OSCAR. Miaoqing will be a vital actor in the implementation of the people-development actions laid out in OSCAR's Strategic Plan.



#Tracy Chen #women in OSCAR administration #the finance section

#Linlin Xia #women in OSCAR administration #the finance section

V Q Y #Hang Ling #women in OSCAR administration #the finance section

financial services required increased significantly. Consequently, the team was shored-up, with Hang Ling joining in September 2021 to ensure a consistently high quality of financial services provided to our research groups. Participating in OSCAR's day-to-day financial accounting, financial management, financial compliance and control activities, Hang, a pleasant and conscientious young woman, has proved a great addition to the Finance Section.

Speaking from my experience, the Finance Section has always shown good responsiveness when handling staff enquiries, superb know-how when advising on financial issues, and exemplary composure in approaching their work. More importantly, they are uncompromising when it comes to the observance of policies and regulations to the letter. Their work is critically important for the implementation of a sound financial management framework and the attainment of financial sustainability for OSCAR.

'Shall we say Wednesday for your orientation training?' asked Tracy. That was my first experience with the Finance Section after I started at OSCAR in the middle of 2020. Tracy and Linlin cooperated to present information on OSCAR's financial policy, procedures and protocols to a helpful level of detail and clarity. I remember walking out of that training thinking, 'they are a representation of order and accountability of the administration team that I'm a part of now.'

Tracy joined OSCAR in 2017, one of the first employees of OSCAR, while Linlin joined around a year later after Tracy. From 2018 to 2020, the duo was responsible for establishing a financial structure that aligns with the University of Oxford's financial regulations, policies, and procedures, as well as Chinese legal requirements. They were also working towards an efficient and justifiable financial mechanism at OSCAR by putting in place rigorous internal policies.

As OSCAR entered its second phase of development in 2021, the scale and scope of





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'Will this Friday afternoon work for Leah?' asks Mary. 'Yes, go ahead and set it up.' I confirm. This is a conversation that takes place monthly between Mary and me when she checks Leah's availability for the regular safety inspection of all laboratories.

It's been a little over three years since Mary started at OSCAR. She is primarily responsible for 'proofing' the OSCAR building against safety and health hazards, especially in labs where researchers are exposed to chemicals, biologicals, lasers and fire. EHS is a systemic, high-stakes facet of the everyday operations of OSCAR. Good EHS practice and supervision is the cornerstone of safe and orderly lab environments where our scientists can focus on developing innovative technologies. The job

requires solid knowledge, meticulous attention, excellent organization and analytical skills, sound judgement plus continuous self-learning to align with the regulations of both the University and local regulators. Mary has demonstrated just those qualities in her role.

At the height of the Covid-19 pandemic in 2020, Mary was on OSCAR's emergency response task group, wasting no time introducing new protocols and measures for a safe and orderly resumption of work onsite at OSCAR. Last year, Mary organized first aid training for staff. I still recall a colleague enthused about the relevance of the training programme, and the first-aider accreditation she had just received.

According to Mary, more training courses are in the pipeline. She says it is important for our employees to have proper emergency response literacy.

'Safety issues during times of pandemic prevention and control in Suzhou'. Reads the subject line of an email popping up on my screen, sender: Mary. Covid restrictions in Suzhou have tightened due to increasing local infections. And I know it's going to be another hectic week for her.



#Mingye Zhou

#women in OSCAR administration

#administration office

Your video is brilliant! You should start a video spin-out company!' comments Mark Moloney, our Deputy Director, on OSCAR's 3rd-anniversary film in an email.

'Good job, video editor!' I couldn't wait to share this compliment with Mingye. This is not the first film we've produced together for OSCAR. She has this magic knack for materializing almost all my ideas for a specific video. But she offers more than just her editing skills, sometimes she would give me practical advice on a particular shot or storyline. Film making quickly became a new responsibility for Mingye in the mere one year she's been on the team.

Mingye joined OSCAR early last year with the role to assist in a wide range of logistical support that underpins the day-to-day operations of OSCAR, including the procurement and management of fixed assets and office supplies, the arrangement of accommodation and transportation for staff and visitors, and the planning and organizing of both team building and public engagement events.

Well-organised and quick-witted, Mingye has performed her job to high standards. Impressively, she knows how to throw a good party; last November, she contributed many brilliant ideas for the programme of OSCAR Family Day, including games, gift-exchanging and snack packs for kids. Everyone at the event had a blast!

'We make a great team.' I said to Mingye at last year's annual meeting, thanking her for the value she added. I'm convinced that working together, we'll be able to tell better OSCAR stories, and well.





♥ ○ ♥ #Yanting Li

#women in OSCAR administration

#media and comms

Editor's Note:



As the Media and Comms Supervisor, I'm uniquely positioned to access information about our people and activities, and transform them into stories that speak to the values and mission of OSCAR. I'm grateful for every support I have received as I'm doing my job. And I feel privileged for being able to have great conversations in my capacity as a reporter and editor. I believe this is one of the bonuses of my job, presenting the message and stories of OSCAR while getting inspired by them.

I must admit that I saw this writing assignment as a 'daunting' one at first, since I was fully aware that even with my best efforts, I would only be able to capture a small fraction of the full profile of 'Women in OSCAR Administration'. However, as I was writing it, I've come to hope that my portrayal of this group of women will give them a moment in the spotlight, a moment when they are appreciated for the calibre and work ethics they have demonstrated on the job. At least that's what dawns on me, writing about them, that I couldn't ask for a better team to work in.

Meet OSCAR New Research Scientist



Xinxin Zhang
Research Scientist in
Prof. Jeremy Robertson's group

Xinxin Zhang joined the OSCAR family in March 2022 as a Research Scientist in Prof. Jeremy Robertson's group. She is expected to receive her DPhil this summer from the University of Oxford. The focus during her DPhil study was on using P450 mutants as general oxidation catalysts during target molecule synthesis. She demonstrated this idea by providing a short route to the synthesis of a balanol core-like structure, and the synthesis of the enantiomer of the natural compound dihydrobulnese, followed by its oxidation with P450 mutants. The experiments were all under the direct supervision of Prof. Jeremy Robertson.

"I'm very excited and honoured to join OSCAR as a Research Scientist," Xinxin says, "OSCAR is the perfect place for me

with everything I need to carry out my research." Xinxin shows great interest in enzymatic oxidation of simple structures as well as conventional synthetic work. Therefore, the opportunity to combine both aspects together for further functionalisation of simple organic molecules, in the purpose of constructing a library of useful intermediates is of great interest to her. "During my time as a visiting student here I was able to gain a deeper understanding of the projects that have been going on here, and I realised they were exactly what I wanted to be involved in. More importantly, the facilities here are perfect for our research." Xinxin says.

At OSCAR, Xinxin will contribute to developing a library of small yet useful building blocks alongside her colleagues. The initial focus of her work will be acquiring simple spirocyclic structures and investigating the P450-mediated oxidation profiles of these structures, followed by the optimisation of regio- and stereo-selective products, potentially guided by docking, and further functionalisation of these molecules. "These products could be adopted by synthetic chemists as useful intermediates or as building blocks for drug development. The research significance along with its potential business value involved in this project is huge and is definitely worth investigating." says Xinxin.



SIP News in March

SIP once again makes the list of industrial demonstration bases for China's 'new type of industrialisation'

China's Ministry of Industry and Information Technology

(MIIT) recently unveiled its 10th List of Industrial

Demonstration Bases for China's New Type of

Industrialization, and SIP is on the list as a "Characteristic Demonstration Base for Industrial Internet" technologies.

The title of "Industrial Demonstration Base for China's New Type of Industrialization" is granted to industrial parks and the like with highly concentrated promising industries for sustainable development. Those on the list must be able to play a leading role nationwide in industrial upgrading integrated development, technical reform, independent innovation, energy saving and emission reduction, safe production, brand building, and efficient utilization of human resources.

SIP was declared a demonstration base in the development of electronic information in 2010, and the base was rated five-stars in 2020.

Recognition should be attributed to SIP's great efforts in recent years to propel the development and application of industrial Internet technologies. A total of 3,944 5G base stations have been installed across SIP so far, and the 5G signal coverage extended across the whole industrial park since the end of 2020.

A full industrial chain with over 600 enterprises engaged in related fields has formed in SIP, with a total annual output value of about RMB 60 billion, and an industrial ecosystem for all-round support for the application of industrial Internet technologies has taken shape.

SIP recently announced the 2022 Action Plan for Development of Intelligent and Digital Manufacturing, which comprises of nine actions aimed at supporting manufacturing enterprises to shift to smart factories and digital business operations.

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