

Publication(s)

1. Men, X., Wang, F., Chen, H., Liu, Y., Men, X., Yuan, Y., Zhang, Z., Gao, D., Wu, C., and Yuan, Z. (2020) Ultrasmall Semiconducting Polymer Dots with Rapid Clearance for Second near-Infrared Photoacoustic Imaging and Photothermal Cancer Therapy. *Adv Funct Mater* [2018 IF=15.621]
2. Wang, D., Xue, B., Ohulchanskyy, T. Y., Liu, Y., Yakovliev, A., Ziniuk, R., Xu, M., Song, J., Qu, J., and Yuan, Z. (2020) Inhibiting Tumor Oxygen Metabolism and Simultaneously Generating Oxygen by Intelligent Upconversion Nanotherapeutics for Enhanced Photodynamic Therapy. *Biomaterials* 251, 120088 [2018 IF=10.273]
3. Gao, J., Zhao, L., Luo, Q., Liu, S., Lin, Z., Wang, P., Fu, X., Chen, J., Zhang, H., Lin, L., and Shi, A. (2020) An EHBP-1-SID-3-DYN-1 Axis Promotes Membranous Tubule Fission During Endocytic Recycling. *Plos Genet* 16, e1008763 [5yr IF=6.283]
4. Wang, Y., Liu, Y., Gozli, D., Xiang, Y. T., and Jackson, T. (2020) The N2pc Component as a Neural Index of Early Attention Allocation among Adults with Chronic Musculoskeletal Pain. *Eur J Pain* [5yr IF=3.409]

PHD ORAL DEFENCE

PhD Oral Defences by Yue LI of Prof. Tzu-Ming LIU's group and Lunqing ZHANG of Prof. Chuxia DENG's group

Mr. Yue LI supervised by Prof. Tzu-Ming LIU and Ms. Lunqing ZHANG supervised by Prof. Chuxia DENG completed their PhD oral defences on 11 and 15 May respectively. Their thesis titles are "Metabolic Imaging of Activated Macrophages using Two-photon Fluorescence Microscopy and Fluorescence Lifetime Imaging Microscopy" and "A Novel Therapy to Improve Prolonged Response off Therapy for Subjects with Primary Immune Thrombocytopenia (ITP) with Combination of Corticosteroids and Thrombopoietin Receptor Agonists (TPO-RAs)".



Mr. LI claimed that highly plastic macrophages are pivotal players in the body's homeostasis and pathogenesis. Grasping the cellular factors that drive the macrophage activation will help to manipulate their functions. He said that according to the recent studies, macrophage activation is critically supported by metabolic reprogramming. He reported that he has found the fluorescence state of two metabolic co-factors (NAD(P)H/FAD) correlated with the metabolic preference and the functions of macrophage. Moreover, he discovered that the activated

macrophages showed differentiable features in mitochondrial morphology. Using a novel nano-probe, he further achieved the labeling and imaging of the macrophage mitochondria *in vivo*. He concluded that these findings were consistent with the results from traditional biochemical assays. The novel developed approach enables the phenotypic characterization of macrophage metabolism and activation state in a dynamic immune microenvironment.

Ms. ZHANG said that prolonged platelet response off therapy of current first-line Immune thrombocytopenia (ITP) treatments remains low and thus she has evaluated whether eltrombopag



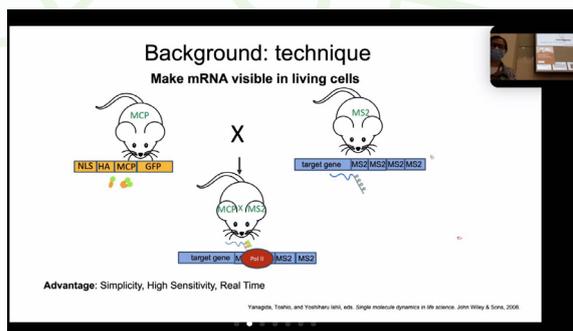
plus pulsed dexamethasone as first-line therapy can increase the proportion of patients maintaining platelet counts $>50 \times 10^9/L$ for prolonged period without further ITP therapy. She introduced the treatment process that taking eltrombopag 25-75 mg daily according to platelet response for 12 weeks plus dexamethasone, 40 mg daily for 4 consecutive days every 4 weeks for 1-3 courses. She added that the primary endpoint was prolonged response off therapy defined as maintaining platelet counts $>50 \times 10^9/L$ for more than 6 months without further ITP therapy. She concluded that the purpose of this study was to establish whether eltrombopag plus dexamethasone has potentials as the first-line treatment and whether it is worth proceeding to a larger Phase III trial.

FHS POSTDOC STUDENT SEMINAR

Presented by Prof. Wenhua ZHENG's group and Prof. Hongjie ZHANG's group

On 14 May, Ms. Shuai LI of Prof. Wenhua ZHENG's group presented "Neuroprotective Effect of Artemether in Alzheimer's Disease Model by Activating AMPK /GSK3 β (ser9)/ Nrf2 Signaling Pathway" and Ms. Zhimin LI of Prof. Hongjie ZHANG's group presented "A Collection of mRNA Toolkit Strains Reveals Distinct Localization and Dynamics of Membrane-associated Genes in *C. elegans* Epithelia".

The next seminar will be held on 28 May and presented by the group members of Prof. Terence POON and Prof. Ningyi SHAO, again via Zoom.



EVENT PROMOTING

4th Symposium on Biomedical Sciences for Students, Post-doctoral Fellows and Research Assistants 2020

FHS is going to hold the 4th Symposium on Biomedical Sciences for Students, Post-doctoral Fellows and Research Assistants 2020 on Zoom and Moodle on 19 May. Details please see the programme and the UMMoodle page: <https://ummoodle.um.edu.mo/course/view.php?id=97851>



Let's join together!

08:45-09:00 Check-in to Zoom OR Moodle.

09:00-09:10 Opening Speech by Prof. Chu-Xia DENG and Group Picture (Zoom)

Oral Presentation Session (09:10-10:40, Zoom) - Chair: Siyi FU

09:10-09:25	DSC2 and PKP1 mediate cluster formation, survival and metastasis in circulating tumor cells	Koukou LI
09:25-09:40	piRNAs mediate amyloid β and α -synuclein pathogenesis in <i>C. elegans</i>	Xiaobing HUANG
09:40-09:55	PRDM3 attenuates pancreatitis and pancreatic tumorigenesis by regulating inflammatory response	Jie YE
09:55-10:10	Protective effect of metformin against hydrogen peroxide-induced oxidative damage in RPE cells by enhancing autophagy through activation of AMPK pathway	Xia ZHAO
10:10-10:25	MD Simulations approach to classify variants of uncertain significance (VUS) within the BRCT repeats of BRCA1 gene	Sidharth SINHA

10:25-10:45 Break

Poster Session (10:45-12:00, In Moodle and Zoom)

11:15-11:30	Poster tour guided by Ran WEI	Cancer Biology and Therapy
11:30-11:45	Poster tour guided by Borong HUANG	Stem Cells and Neural Disease
11:45-12:00	Poster tour guided by Limei DENG	Molecular Biology and Biotechnology

12:00-12:15 Promotion and FHS videos (Zoom)

12:15-12:30 Awards, Lucky Draw, Closing Speech by Prof. Ren-He XU (Zoom)

May / Jun 2020				
Mon	Tue	Wed	Thu	Fri
18	19	20	21	22
	<p><u>4th Symposium on Biomedical Sciences for Students, Post-doctoral Fellows and Research Assistants 2020</u> Time: 9:00-12:30 Venue: Zoom</p>	<p><u>GBSC Core - Illumina NextSeq 2000 sequencing system Seminar</u> Speaker: Mr. Thomas YANG (Illumina Specialist) Time: 14:30 - 15:30 Venue: Zoom</p>		
25	26	27	28	29
		<p><u>AC Meeting</u> Time: TBC Venue: E12-G004</p>	<p><u>FHS Postdoc/ Student Seminar</u> Field: Data science Host: Prof. Terence POON and Prof. Ningyi SHAO Time: 17:00-18:00 Venue: N22-G002 and Zoom</p>	
JUNE 1	2	3	4	5
8	9	10	11	12