# **GUANGCHUANG YU**

Professor of Bioinformatics at Southern Medical University. I have developed more than 20 R packages, including clusterProfiler, ChIPseeker, treeio and ggtree.

I am broadly interested in bioinformatics, metagenomics, molecular evolution, data integration and visualization.



## **EDUCATION**

南方医科大学高层次人才"不忘初心 牢记使命"学习教育

延安干部培训学院

Yan'an, CN

2017

2018

#### PhD.. Bioinformaitcs

The University of Hong Kong

Hong Kong, CN

2013

· Thesis: Big-data computational methods for studying molecular evolution: from accurate genome assembly to phylogenetic analysis and data integration

2015

### **Train the Trainers**

Institut Pasteur

Paris, FR

2009 2006

#### M.S., Biochemistry and Molecular Biology

Anhui Medical University

PHefei, CN

·Thesis: miRNA靶基因计算分析新方法及其应用研究

2005 2001

2015

#### **B.S.**, Biotechnology

Southern Medical University

Q Guangzhou, CN



# **E** CERTIFICATE

Certificate of Teaching and Learning in Higher Education

Centre for Enhancement of Teaching and Learning

The University of Hong Kong



# RESEARCH EXPERIENCE

2026

2018

2017

**Professor** 

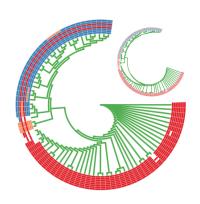
Southern Medical University School of Basic Medical Sciences

· Associate director of Institute of Bioinformatics

Post-doctoral Fellow 2018

State Key Laboratory of Infectious Diseases

♦ The University of Hong Kong



## CONTACT

- guangchuangyu@gmail.com
- y guangchuangyu
- github.com/GuangchuangYu
- guangchuangyu.github.io
- **%** biobabble
- **J** (86) 13826432521

### SKILLS

Highly experienced in

- · ggplot2

Experience with

- · Linux
- · Bash
- · C++
- ·JAVA

Bioinformatician 2013 Key Laboratory of Functional Protein Research of Guangdong Higher 2009 **Education Institutes ♥** Jinan University ♣☐ TEACHING EXPERIENCE BMB209: Workshops in Applied Bioinformatics 2019 Department of Biochemistry and Molecular Biology • University of Southern Denmark · PhD level class, invited lecture 生物信息学科研训练 2019 Southern Medical University School of Basic Medical Sciences · Undergraduate level class 基因组学 2019 Southern Medical University School of Basic Medical Sciences · Undergraduate level class 基础医学新进展讲座 2019 Southern Medical University School of Basic Medical Sciences · Undergraduate level class 2012 功能蛋白质研究 **♥** Jinan University College of Life Science and Technology 2011 · Graduate level class GRANTS 南方医科大学第三层次人才引进科研项目 (G618289088) 2020 **PI**, CNY ¥1,500,000 2018 hnRNPK蛋白在调控人肺癌细胞周期胞质分裂中的作用研究 (21613414) 2013 PI, CNY ¥100,000 ·中央高校基本科研业务费专项资金 Hela细胞周期动态蛋白质组学分析 (21611303) 2011 PI, CNY ¥20,000 ·中央高校基本科研业务费专项资金



2018

2017

2016

### 生物信息学II

《*功能蛋白质研究*》. 385-425. 何庆瑜(主编), 科学出版社

- . 余光创
- ·"十二五"国家重点图书出版规划项目



# **PUBLICATIONS**

Two methods for mapping and visualizing associated data on phylogeny using ggtree

Molecular Biology and Evolution. 2018, 35(12):3041-3043.

- · G Yu\*, TTY Lam, H Zhu, Y Guan\*
- · Impact Factor = 14.797

Using meshes for MeSH term enrichment and semantic analyses

Bioinformatics. 2018, 34(21):3766-3767.

· G Yu

ggtree: an R package for visualization and annotation of phylogenetic trees with their covariates and other associated data

Methods in Ecology and Evolution. 2017, 8(1):28-36

- $\cdot$  **G Yu**, DK Smith, H Zhu, Y Guan, TTY Lam\*
- · ♥ ESI Highly Cited Paper

ReactomePA: an R/Bioconductor package for reactome pathway analysis and visualization

Molecular BioSystems. 2016, 12(2):477-479

- · **G Yu**, QY He\*
- · T ESI Highly Cited Paper

Integrated Translatomics with Proteomics to Identify Novel Iron-Transporting Proteins in *Streptococcus pneumoniae* 

Frontiers in Microbiology. 2016, 7:78

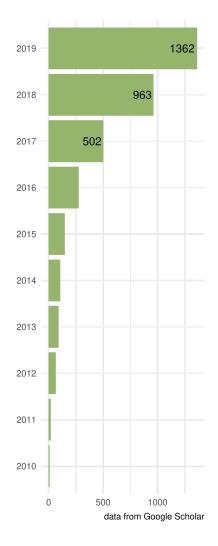
· XY Yang, K He, G Du, X Wu, **G Yu**, Y Pan, G Zhang\*, X Sun\*, QY He\*

Genetic characterization of highly pathogenic H5 influenza viruses from poultry in Taiwan, 2015

Infection, Genetics and Evolution. 2016, 38:96-100

 $\cdot$  PY Huang, CCD Lee, CH Yip, CL Cheung, f G f Yu, TTY Lam, DK Smith, H Zhu $^*$ , Y Guan $^*$ 

- · Citation = 3598
- $\cdot$  H-index = 16
- $\cdot$  I10-index = 22



2016

2016

ChIPseeker: an R/Bioconductor package for ChIP peak annotation, 2015 comparision and visualization Bioinformatics. 2015, 31(14):2382-2383 · **G Yu**\*. LG Wang. OY He\* · T ESI Highly Cited Paper DOSE: an R/Bioconductor package for Disease Ontology Semantic and 2015 **Enrichment analysis** Bioinformatics. 2015, 31(4):608-609 · **G Yu**\*, LG Wang, GR Yan, QY He\* ACK1 Promotes Gastric Cancer Epithelial-Mesenchymal Transition and 2015 Metastasis through AKT-POU<sub>2</sub>F<sub>1</sub>-ECD Signaling Journal of Pathology. 2015, 236(2):175-185 · SH Xu, JZ Huang, ML Xu, <font color='black size='3">G Yu, XF Yin, D Chen\*, GR Yan\* Proteomic analysis on the copper resistance of *Streptococcus* 2015 pneumonia Metallomics. 2015. 7(3):448-454  $\cdot$  Z Guo, J Han, XY Yang, K Cao, K He, G Du, G Zeng, L Zhang, f G f Yu, Z Sun, QY He\*, X Sun\* Proteomic analysis on the antibacterial activity of a Ru(II) complex 2015 against Strepococcus pneumonia Journal of Proteomics. 2015. 115:107-116 · XY Yang, L Zhang, J Liu, N Li, **G Yu**, K Cao, J Han, G Zeng, Y Pan, X Sun\*, Proteomic analysis of putative heme-binding proteins in *Streptococcus* 2014 pyogenes Metallomics. 2014. 6(8):1451-1459 N Wang<sup>#</sup>, J Zhang<sup>#</sup>, L Zhang, XY Yang, N Li, **G Yu**, J Han, K Cao, Z Guo, X Sun\*, QY He\* Putative cobalt- and nickel-binding proteins and motifs in 2013 Streptococcus pneumonia Metallomics. 2013, 5(7):928-935 · X Sun#, **G Yu**#, Q Xu, N Li, C Xiao, X Yin, K Cao, J Han, QY He\* A novel andrographolide derivative AL-1 exerts its cytotoxicity on K562 2013 cells through a ROS-dependent mechanism Proteomics, 2013, 13(1):169-178 · YY Zhu<sup>#</sup>, **G Yu**<sup>#</sup>, Y Zhang, Z Xu, YQ Huang, GR Yan<sup>\*</sup>, QY He<sup>\*</sup>

A DNA-Based Semantic Fusion Model for Remote Sensing Data 2013 PLoS One. 2013, 8(10):e77090 · H Sun\*, J Weng, **G Yu**, RH Massawe Quantitative Proteomics Characterization on the Anti-tumor Effects of 2013 Isodexyelephantopin against Nasopharyngeal Carcinoma Proteomics. 2013, 13(21):3222-3232 · GR Yan<sup>#</sup>, Z Tan<sup>#</sup>, Y Wang, ML Xu, **G Yu**, Y Li<sup>\*</sup>, QY He<sup>\*</sup> Design, SAR, angiogenic activities evaluation and pro-angiogenic 2013 mechanism of new marine cyclopeptide analogs Current Medicinal Chemistry. 2013, 20(9):1183-1194 · J Li, X Lu, Q Wu, **G Yu**, Z Xu, L Qiu, Z Pei, Y Lin, J Pang\* Proteomic investigation of the interactome of FMNL1 in hematopoietic 2013 cells unveils a role in calcium-dependent membrane plasticity **Journal of Proteomics**. 2013, 78:72-82 · Y Han, **G Yu**, H Sarioglu, A Caballero-Martinez, F Schlott, M Ueffing, H Haase, C Peschel, AM Krackhardt\* LXtoo: an integrated live Linux distribution for the bioinformatics 2012 community BMC Research Notes. 2012, 5(1):360  $\cdot$  **G Yu**<sup>#</sup>. LG Wana<sup>#</sup>. XH Mena. OY He $^*$ clusterProfiler: an R package for comparing biological themes among 2012 gene clusters OMICS: A Journal of Integrative Biology. 2012, 16(5):284-287 · **G Yu**, LG Wang, Y Han, QY He\* · ₹ ESI Highly Cited Paper Cellular MicroRNA let-7c Inhibits M1 Protein Expression of the H1N1 2012 Influenza A Virus in Infected Human Lung Epithelial Cells Journal of Cellular and Molecular Medicine. 2012, 16(10):2539-2546 · Y Ma<sup>#</sup>, J Yang<sup>#</sup>, X Fan<sup>#</sup>, H Zhao, W Hu, Z Li, **G Yu**, X Ding, J Wang, X Bo, X Zheng, Z Zhou\*, S Wang\* Genistein-induced mitotic arrest of gastric cancer cells by 2012 downregulating KIF20A, a proteomics study Proteomics. 2012, 12(14):2391-2399 · GR Yan\*. FY Zhou\*. BL Dang. Y Zhang. G Yu. X Liu. OY He\*

2011	Functional similarity analysis of human virus-encoded miRNAs  Journal of Clinical Bioinformatics. 2011, 1(1):15
	· <b>G Yu</b> , QY He*
2011	A new method for measuring functional similarity of microRNAs <i>Journal of Integrated OMICS</i> . 2011, 1(1):49-54
	$\cdot$ <b>G Yu</b> <sup>#</sup> , CL Xiao <sup>#</sup> , X Bo, CH Lu, Y Qin, S Zhan, QY He <sup>*</sup>
2011	Phosphoproteome profile of human lung cancer cell line A549  Molecular BioSystems. 2011, 7(2):472-479
	$\cdot$ <b>G Yu</b> #, CL Xiao#, CH Lu#, HT Jia, F Ge, W Wang, XF Yin, HL Jia, JX He $^*$ , QY He $^*$
2011	Proteomic Analysis of Membrane Proteins from <i>Streptococcus</i> pneumoniae with Multiple Separation Methods plus High Accuracy Mass Spectrometry
	OMICS: A Journal of Integrative Biology. 2011, 15(10):683-694
	$\cdot$ X Sun#, XY Yang#, XF Yin, $oldsymbol{G}$ $oldsymbol{Y}$ $oldsymbol{u}$ , CL Xiao, X He, QY He $^*$
2010	GOSemSim: an R package for measuring semantic similarity among GO terms and gene products
	<i>Bioinformatics</i> . 2010, 26(7):976-978
	· <b>G Yu</b> #, F Li#, Y Qin, X Bo*, Y Wu, S Wang* · <b>∵</b> ESI Highly Cited Paper
2009	结合基因组分析预测炎症相关miRNA及其靶标 军事医学科学院院刊. 2009, 33(3):245-247
	· <b>余光创</b> ,王超,许尹,伯晓晨,王升启",秦宜德"
2007	依赖于5'端非编码区高级结构的真核生物mRNA翻译调控 中国生物化学与分子生物学报 2007, 23(11):881-887
I	· <b>余光创</b> , 秦宜德 , 伯晓晨 , 王升启*
:	CONFERENCE PROCEEDINGS
2019	Two methods for mapping and visualizing associated data on phylogeny using ggtree
	第一届南方医科大学基础医学学术年会 ♥ Guangzhou, CN
2018	Data integration and visualization of phylogenetic trees
ı	The 3 <sup>rd</sup> South Lake Innovation Forum for International Young Talents • Wuhan, CN

2017	ggtree for tree visualization & annotation  Phylogenetic tree visualization workshop/hackathon  ◆ Chicago, U
2017	Computational Methods in Ecology and Evolution  The Second International Workshop on Environmental Microbiomes  ♥ Guangzhou, CI
2016	<b>ggtree for visualization and annotation of phylogenetic trees</b> The $9^{th}$ China-R Conference