# **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.

· Thesis: Big-data computational methods for studying molecular



### **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 2013

2018

#### PhD.. Bioinformaitcs

The University of Hong Kong

Hong Kong, CN

evolution: from accurate genome assembly to phylogenetic analysis and data integration

**Train the Trainers** 

Institut Pasteur

Paris, FR

2009 2006

2015

#### 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

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

Southern Medical University

Q Guangzhou, CN



## **E** CERTIFICATE

Certificate of Teaching and Learning in Higher Education 2015

Centre for Enhancement of Teaching and Learning

♦ The University of Hong Kong



## RESEARCH EXPERIENCE

2026

**Professor** 

School of Basic Medical Sciences

Southern Medical University

· Associate director of Institute of Bioinformatics

2018

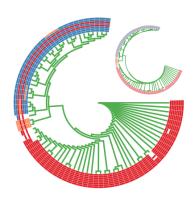
2017

2018

Post-doctoral Fellow

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





## **=** PUBLICATIONS

2018

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

2018

Using meshes for MeSH term enrichment and semantic analyses Bioinformatics. 2018, 34(21):3766-3767.

· G Yu

2017

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

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

2016

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

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

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

2016

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\*

2016

Genetic characterization of highly pathogenic H<sub>5</sub> influenza viruses from poultry in Taiwan, 2015

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

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

2015

ChIPseeker: an R/Bioconductor package for ChIP peak annotation, comparision and visualization

Bioinformatics. 2015, 31(14):2382-2383

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

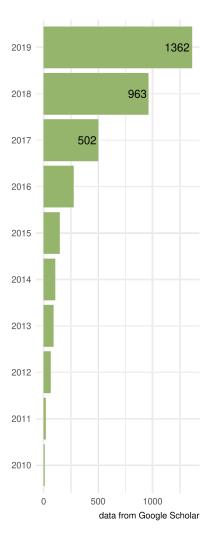
2015

DOSE: an R/Bioconductor package for Disease Ontology Semantic and **Enrichment analysis** 

Bioinformatics. 2015, 31(4):608-609

· G Yu\*, LG Wang, GR Yan, QY He\*

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



2015	ACK1 Promotes Gastric Cancer Epithelial-Mesenchymal Transition and
2013	Metastasis through AKT-POU2F1-ECD Signaling
	Journal of Pathology. 2015, 236(2):175-185
	· SH Xu, JZ Huang, ML Xu, <b>G Yu</b> , XF Yin, D Chen <sup>*</sup> , GR Yan <sup>*</sup>
2015	Proteomic analysis on the copper resistance of <i>Streptococcus</i> pneumonia
	<b>Metallomics</b> . 2015, 7(3):448-454
	· Z Guo, J Han, XY Yang, K Cao, K He, G Du, G Zeng, L Zhang, <b>G Yu</b> , Z Sun, QY He <sup>*</sup> , X Sun <sup>*</sup>
2015	Proteomic analysis on the antibacterial activity of a Ru(II) complex against <i>Strepococcus pneumonia</i>
	Journal of Proteomics. 2015, 115:107-116
	· XY Yang, L Zhang, J Liu, N Li, <b>G Yu</b> , K Cao, J Han, G Zeng, Y Pan, X Sun <sup>*</sup> , QY He <sup>*</sup>
2014	Proteomic analysis of putative heme-binding proteins in <i>Streptococcus pyogenes</i>
	<b>Metallomics</b> . 2014, 6(8):1451-1459
	· N Wang*, J Zhang*, L Zhang, XY Yang, N Li, <b>G Yu</b> , J Han, K Cao, Z Guo, X Sun*, QY He*
2013	Putative cobalt- and nickel-binding proteins and motifs in Streptococcus pneumonia
	<i>Metallomics</i> . 2013, 5(7):928-935
	· X Sun#, <b>G Yu</b> #, Q Xu, N Li, C Xiao, X Yin, K Cao, J Han, QY He <sup>*</sup>
2013	A novel andrographolide derivative AL-1 exerts its cytotoxicity on K562 cells through a ROS-dependent mechanism
	<i>Proteomics</i> , 2013, 13(1):169-178
	· YY Zhu#, <b>G Yu</b> #, Y Zhang, Z Xu, YQ Huang, GR Yan*, QY He*
2013	A DNA-Based Semantic Fusion Model for Remote Sensing Data
	<b>PLoS One</b> . 2013, 8(10):e77090
	· H Sun <sup>*</sup> , J Weng, <b>G Yu</b> , RH Massawe
2013	Quantitative Proteomics Characterization on the Anti-tumor Effects of Isodexyelephantopin against Nasopharyngeal Carcinoma
	<b>Proteomics</b> . 2013, 13(21):3222-3232
	· GR Yan <sup>#</sup> , Z Tan <sup>#</sup> , Y Wang, ML Xu, <b>G Yu</b> , Y Li <sup>*</sup> , QY He <sup>*</sup>
2013	Design, SAR, angiogenic activities evaluation and pro-angiogenic mechanism of new marine cyclopeptide analogs
	Current Medicinal Chemistry. 2013, 20(9):1183-1194
	· J Li, X Lu, Q Wu, <b>G Yu</b> , Z Xu, L Qiu, Z Pei, Y Lin, J Pang*

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2013	Proteomic investigation of the interactome of FMNL1 in hematopoietic cells unveils a role in calcium-dependent membrane plasticity
	Journal of Proteomics. 2013, 78:72-82
	· Y Han, <b>G Yu</b> , H Sarioglu, A Caballero-Martinez, F Schlott, M Ueffing, H Haase, C Peschel, AM Krackhardt*
2012	LXtoo: an integrated live Linux distribution for the bioinformatics community
	<b>BMC Research Notes</b> . 2012, 5(1):360
	· <b>G Yu</b> <sup>#</sup> , LG Wang <sup>#</sup> , XH Meng, QY He <sup>*</sup>
2012	clusterProfiler: an R package for comparing biological themes among gene clusters
	OMICS: A Journal of Integrative Biology. 2012, 16(5):284-287
	<ul><li>• G Yu, LG Wang, Y Han, QY He*</li><li>• ESI Highly Cited Paper</li></ul>
2012	Cellular MicroRNA let-7c Inhibits M1 Protein Expression of the H1N1 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, <b>G Yu</b> , X Ding, J Wang, X Bo, X Zheng, Z Zhou <sup>*</sup> , S Wang <sup>*</sup>
2012	Genistein-induced mitotic arrest of gastric cancer cells by downregulating KIF20A, a proteomics study
	<i>Proteomics</i> . 2012, 12(14):2391-2399
	· GR Yan#, FY Zhou#, BL Dang, Y Zhang, <b>G Yu</b> , X Liu, QY He*
2011	Functional similarity analysis of human virus-encoded miRNAs  Journal of Clinical Bioinformatics. 2011, 1(1):15
	· G Yu, QY He*
2011	A new method for measuring functional similarity of microRNAs  Journal of Integrated OMICS. 2011, 1(1):49-54
	· <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 <i>Molecular BioSystems</i> . 2011, 7(2):472-479
	• <b>G Yu</b> <sup>#</sup> , CL Xiao <sup>#</sup> , CH Lu <sup>#</sup> , HT Jia, F Ge, W Wang, XF Yin, HL Jia, JX He <sup>*</sup> , QY He <sup>*</sup>
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 <sup>#</sup> , XY Yang <sup>#</sup> , XF Yin, <b>G Yu</b> , CL Xiao, X He, QY He $^*$

2010	GOSemSim: an R package for measuring semantic similarity among GO terms and gene products  Bioinformatics. 2010, 26(7):976-978  • G Yu*, F Li*, Y Qin, X Bo*, Y Wu, S Wang*  • ESI Highly Cited Paper
2009	<b>结合基因组分析预测炎症相关miRNA及其靶标</b> <b>军事医学科学院院刊</b> . 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 <b>'端非编码区高级结构的真核生物mRNA翻译调控</b> 中国生物化学与分子生物学报: 2007, 23(11):881-887 · 余光创,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
2018	<b>Data integration and visualization of phylogenetic trees</b> 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, US
2017	Computational Methods in Ecology and Evolution  The Second International Workshop on Environmental Microbiomes  ♥ Guangzhou, CN
2016	<b>ggtree for visualization and annotation of phylogenetic trees</b> The $9^{th}$ China-R Conference $\bigcirc$ Beijing, CN