

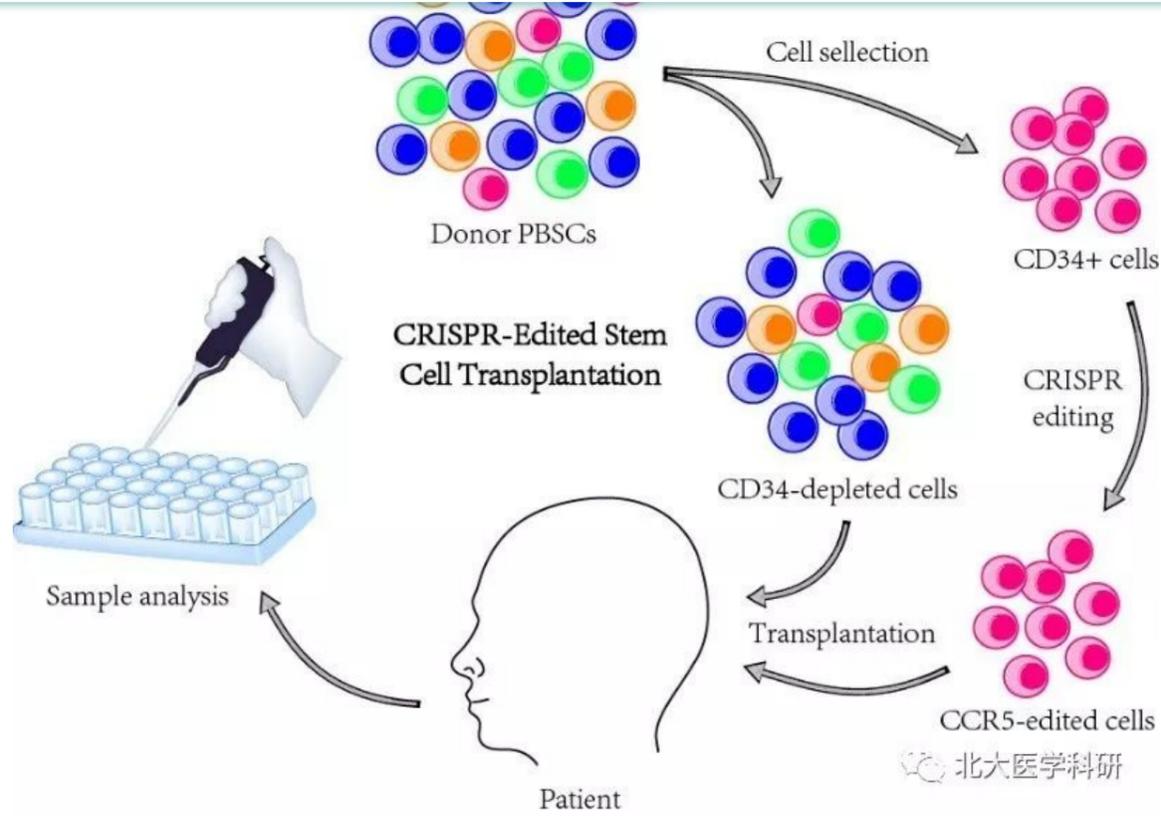
2019年北大医学在CNS及四大医学名刊上发表20篇创新性研究成果

发布时间: 2019-12-25

2019年, 北大医学作为第一或通讯作者单位在Cell、Nature、Science、Lancet、JAMA、NEJM和BMJ共计7种国际权威学术期刊上发表20篇创新性研究成果, 其中Article类研究成果13篇, Review类研究成果7篇。

Article类创新性研究成果简介

题目	期刊	类型	代表作者
CRISPR-Edited Stem Cells in a Patient with HIV and Acute Lymphocytic Leukemia	NEJM	Article	邓宏魁
Conventional and genetic evidence on alcohol and vascular disease aetiology: a prospective study of 500 000 men and women in China	Lancet	Article	李立明
Maternal mortality ratios in 2852 Chinese counties, 1996-2015, and achievement of Millennium Development Goal 5 in China: a subnational analysis of the Global Burden of Disease Study 2016	Lancet	Article	康蕊云
Effect of Laparoscopic vs Open Distal Gastrectomy on 3-Year Disease-Free Survival in Patients With Locally Advanced Gastric Cancer: the CLASS-01 Randomized Clinical Trial	JAMA	Article	季加孚
Reconstituting the transcriptome and DNA methylome landscapes of human implantation	Nature	Article	乔杰
Long-term functional maintenance of primary human hepatocytes in vitro	Science	Article	邓宏魁
Nitromethane as a nitrogen donor in Schmidt-type formation of amides and nitriles	Science	Article	焦宁
Generation of Blastocyst-like Structures from Mouse Embryonic and Adult Cell Cultures	Cell	Article	于洋
Mucosal Profiling of Pediatric-Onset Colitis and IBD Reveals Common Pathogenics and Therapeutic Pathways	Cell	Article	白凡
Landscape and Dynamics of Single Immune Cells in Hepatocellular Carcinoma	Cell	Article	彭吉润
Contribution of specific diseases and injuries to changes in health adjusted life expectancy in 187 countries from 1990 to 2013: retrospective observational study	BMJ	Article	郭岩
Association of China's universal two child policy with changes in births and birth related health factors: national, descriptive comparative study	BMJ	Article	刘建敬
Effects of Helicobacter pylori treatment and vitamin and garlic supplementation on gastric cancer incidence and mortality: follow-up of a randomized intervention trial	BMJ	Article	潘凯枫



2019年9月11日，基础医学院邓宏魁研究组、解放军总医院第五医学中心陈虎研究组及首都医科大学附属北京佑安医院吴昊研究组合作在NEJM发表了题为“CRISPR-Edited Stem Cells in a Patient with HIV and Acute Lymphocytic Leukemia”的研究论文，建立了基于CRISPR在人成体造血干细胞上进行CCR5基因编辑的技术体系，实现了经基因编辑后的成体造血干细胞在人体内长期稳定的造血系统重建。

02

THE LANCET

ARTICLES | ONLINE FIRST

Conventional and genetic evidence on alcohol and vascular disease aetiology: a prospective study of 500 000 men and women in China

Iona Y Millwood, DPhil • Robin G Walters, PhD • Xue W Mei, MPhil • Yu Guo, MSc • Ling Yang, PhD • Zheng Bian, MSc • et al. [Show all authors](#)

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北大医学科研

2019年4月4日，公共卫生学院李立明课题组与中国医学科学院、牛津大学合作在Lancet上发表了题为“Conventional and genetic evidence on alcohol and vascular disease aetiology: a prospective study of 500 000 men and women in China”的研究论文。该研究基于中国慢性病前瞻性研究（CKB）项目中16万名成年人的前瞻性随访数据和遗传学数据，发现随着饮酒量的增加，血压水平和脑卒中发病风险持续增加。

03

Maternal mortality ratios in 2852 Chinese counties, 1996–2015, and achievement of Millennium Development Goal 5 in China: a subnational analysis of the Global Burden of Disease Study 2016



Juan Liang*, Xiaohong Li*, Chuyun Kang*, Yanping Wang, Xie Rachel Kulikoff, Matthew M Coates, Marie Ng, Shusheng Luo, Yi Mu, Xiaodong Wang, Rong Zhou, Xinghui Liu, Yali Zhang, Yubo Zhou, Maigeng Zhou, Qi Li, Zheng Liu, Li Dai, Mingrong Li, Yiyi Zhang, Kui Deng, Xinying Zeng, Changfei Deng, Ling Yi, Jun Zhu, Christopher J L Murray, Haidong Wang



Summary
Background As one of only a handful of countries that have achieved both Millennium Development Goals (MDGs) 4 and 5, China has substantially lowered maternal mortality in the past two decades. Little is known, however, about the levels and trends of maternal mortality at the county level in China.

Lancet 2019; 393: 241–52
Published Online
http://dx.doi.org/10.1016/S0140-6736(18)31712-4

Methods Using a national registration system of maternal mortality at the county level, we estimated the maternal

2019年1月19日，公共卫生学院康楚云课题组与四川大学朱军团团队合作在Lancet上发表了题为“Maternal mortality ratios in 2852 Chinese counties, 1996-2015, and achievement of Millennium Development Goal 5 in China: a subnational analysis of the Global Burden of Disease Study 2016”的研究论文，揭示了我国孕产妇死亡的现状和趋势，对于在可持续发展目标时代降低发展中国家以及贫困地区的孕产妇死亡率具有重要意义。

04

Research

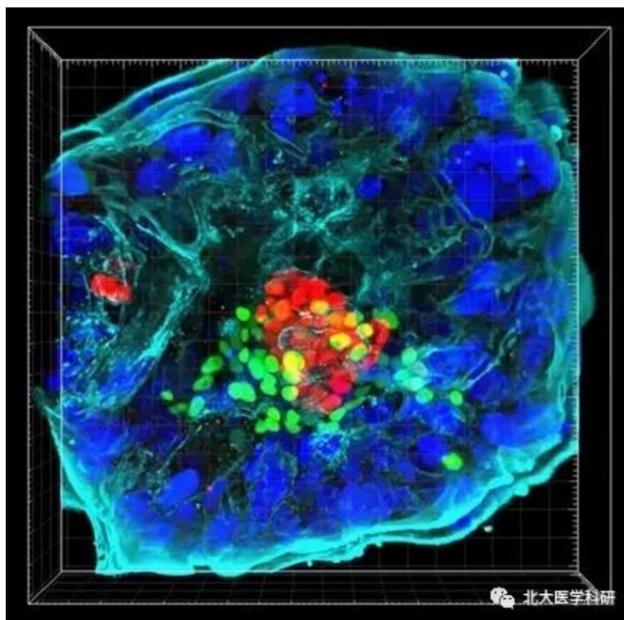
JAMA | Original Investigation

Effect of Laparoscopic vs Open Distal Gastrectomy on 3-Year Disease-Free Survival in Patients With Locally Advanced Gastric Cancer: The CLASS-01 Randomized Clinical Trial

Jiang Yu, MD, Changming Huang, MD, Yihong Sun, MD, Xiangqian Su, MD, Hui Cao, MD, Jiankun Hu, MD, Kuan Wang, MD, Jian Suo, MD, Kaixiong Tao, MD, Xianli He, MD, Hongbo Wei, MD, Mingang Ying, MD, Weiguo Hu, MD, Xiaohui Du, MD, Yanfeng Hu, MD, Pingping Hu, MD, Chaozhai Zheng, MD, Ping Li, MD, Jianwei Xie, MD, Fenglin Liu, MD, Ziyu Li, MD, Gang Zhao, MD, Kun Yang, MD, Chunxiao Liu, MD, Huijie Li, MD, Pingyan Chen, PhD, Jiafu Ji, MD, Guoxin Li, MD, PhD, FRCS, for the Chinese Laparoscopic Gastrointestinal Surgery Study (CLASS) Group

2019年5月28日，肿瘤医院季加孚教授和南方医科大学南方医院李国新教授联合在JAMA上发表题为“Effect of Laparoscopic vs Open Distal Gastrectomy on 3-Year Disease-Free Survival in Patients With Locally Advanced Gastric Cancer: the CLASS-01 Randomized Clinical Trial”的研究论文，报道了多中心随机对照试验CLASS-01的主要终点结果，支持腹腔镜远端胃切除术在局部进展期患者中的应用，具有改变临床实践的重要意义。

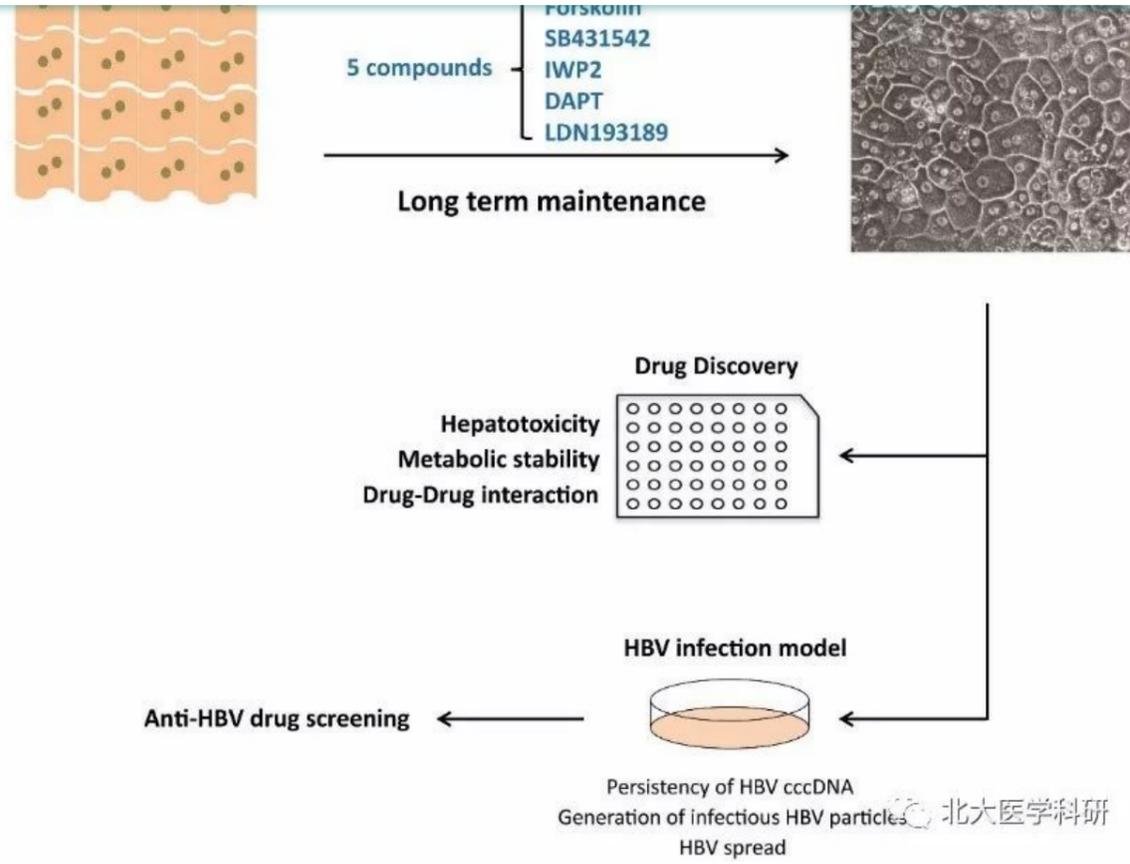
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2019年8月22日，第三医院乔杰课题组和汤富酬课题组合作在Nature发表题为“Reconstituting the transcriptome and DNA methylome landscapes of human implantation”的研究成果，首次阐述了人类胚胎着床过程（受精后第5天到14天）基因表达调控网络和DNA甲基化动态变化规律，解析了围着床期胚胎发育的分子调控机制。

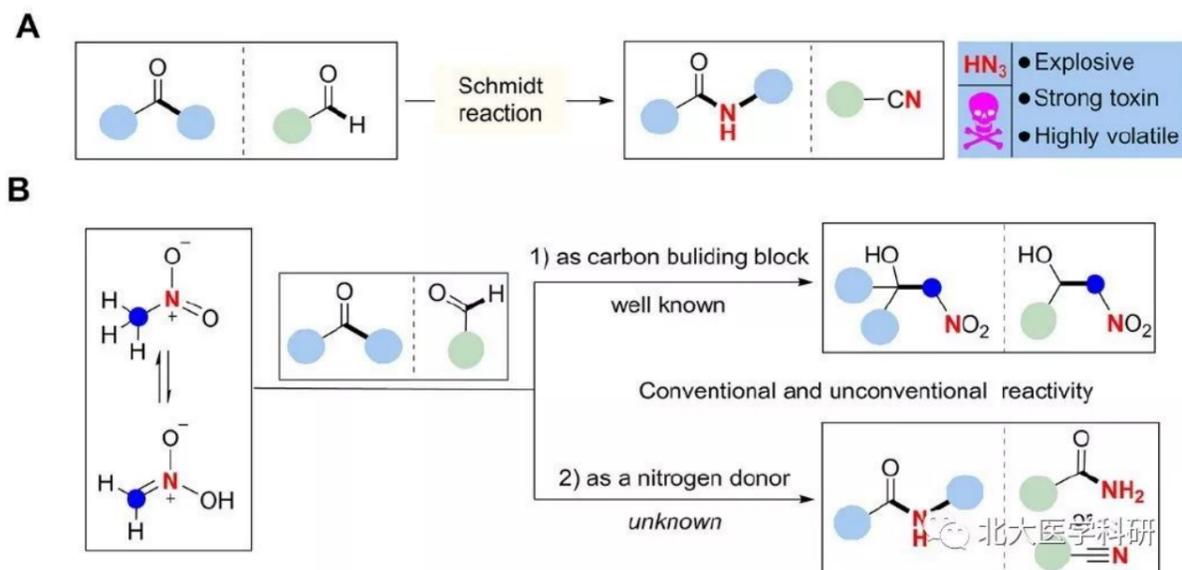
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2019年4月26日，基础医学院邓宏魁研究组、解放军总医院卢实春研究组以及复旦大学袁正宏研究组合作在Science上发表了题为“Long-term functional maintenance of primary human hepatocytes in vitro”的研究论文，首次证明利用化学小分子调控细胞信号通路，实现了功能细胞在体外的长期维持，为大量制备功能成熟细胞及其应用提供了可能。

07



2019年12月5日，药学院焦宁团队在Science 在线发表题为“Nitromethane as a nitrogen donor in Schmidt-type formation of amides and nitriles”的研究论文，该研究报道了新颖的级联活化策略，从而使得廉价、安全的常规溶剂分子硝基甲烷替代在施密特反应中叠氮化物的使用，为在药物和材料中广泛使用的酰胺和腈化合物的合成提供了高效、新颖的合成方法，研究进一步扩大了传统施密特反应的底物使用范围，在含氮化合物制备领域取得了新的突破。

08

Generation of Blastocyst-like Structures from Mouse Embryonic and Adult Cell Cultures

Ronghui Li,^{1,9} Cuiqing Zhong,^{1,9} Yang Yu,^{1,2,3,9} Haisong Liu,¹ Masahiro Sakurai,^{1,4,5} Leqian Yu,^{4,5} Zheyang Min,² Lei Shi,^{1,8} Yulei Wei,^{4,5,6} Yuta Takahashi,¹ Hsin-Kai Liao,^{1,8} Jie Qiao,² Hongkui Deng,⁷ Estrella Nuñez-Delgado,⁸ Concepcion Rodriguez Esteban,¹ Jun Wu,^{4,5,*} and Juan Carlos Izpisua Belmonte^{1,10,*}

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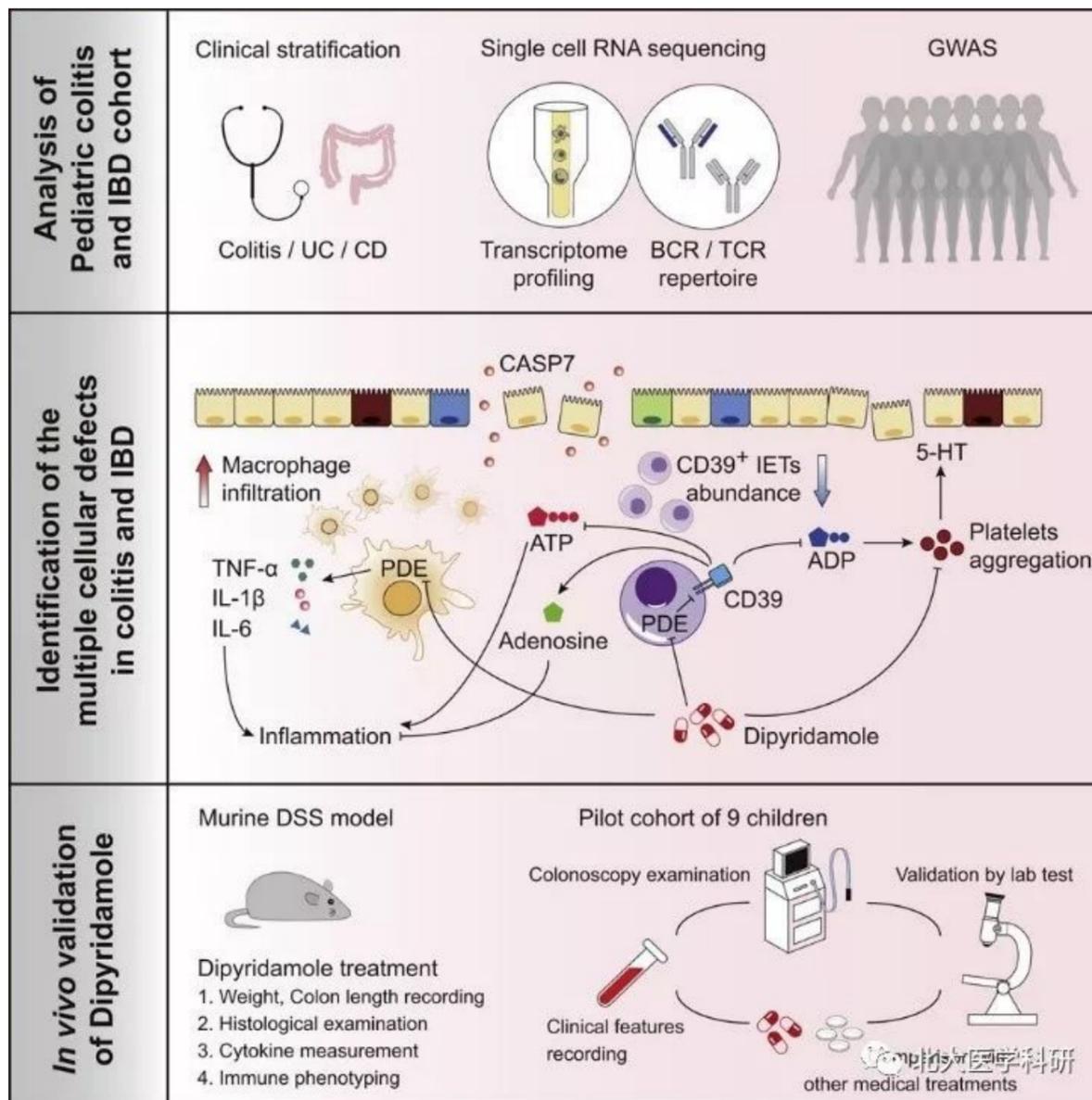
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<https://doi.org/10.1016/j.cell.2019.09.029>



2019年10月18日，第三医院于洋课题组与美国索尔克（SALK）生物学研究所Belmonte课题组、德克萨斯大学西南医学中心吴军课题组合作在Cell发表题为“Generation of blastocyst-like structures from mouse embryonic and adult cell cultures”的研究论文，结合干细胞生物学、发育生物学和3D培养等多种手段，揭示了生命可以不从受精，而从单一细胞启动发育，为器官移植提供重要来源。

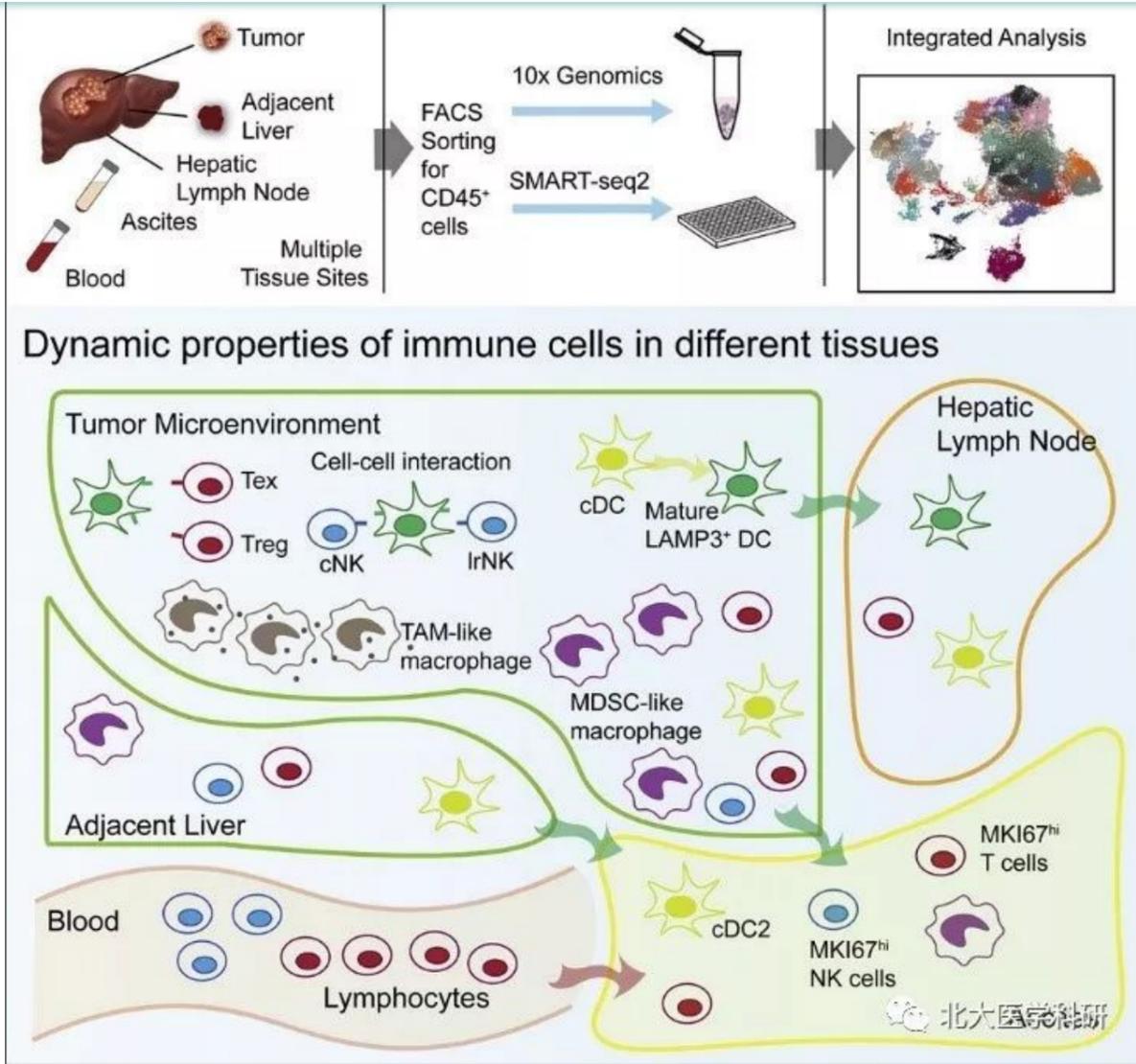
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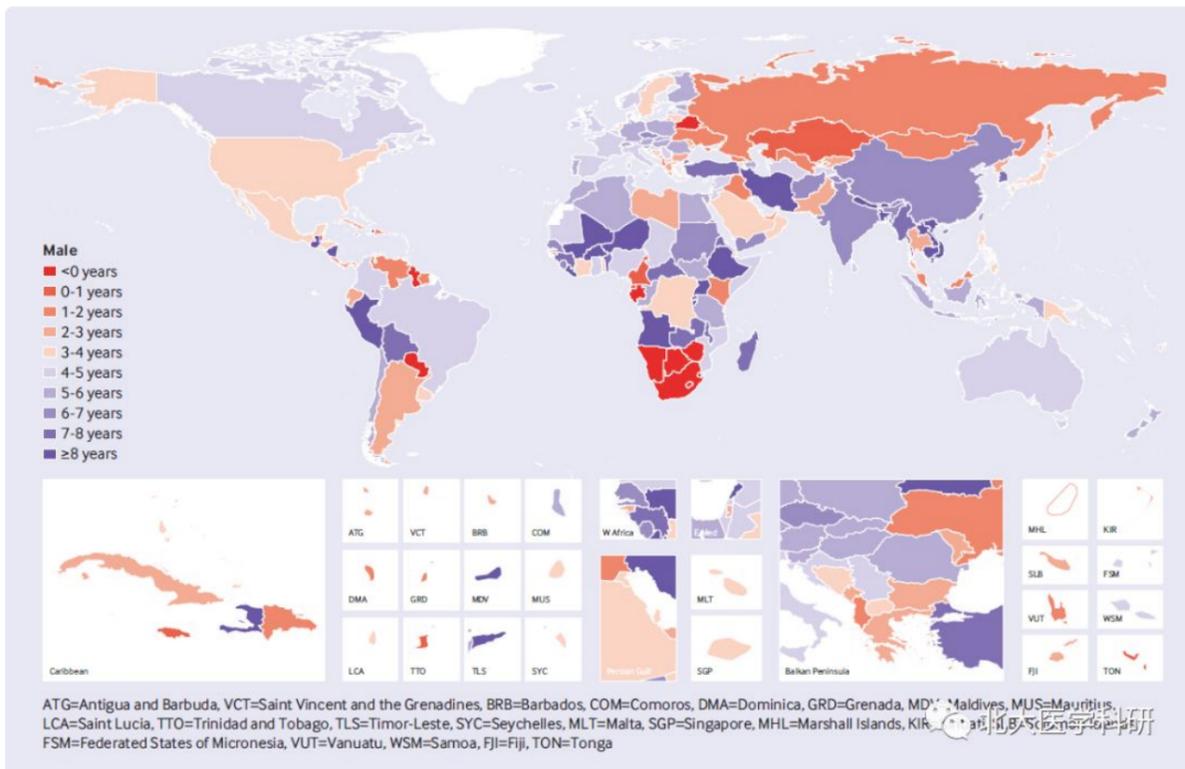
2019年11月14日，北大医院白凡课题组与广州医科大学张玉霞、杨敏、龚四堂等合作在Cell发表题为“Mucosal Profiling of Pediatric-Onset Colitis and IBD Reveals Common Pathogenics and Therapeutic Pathways”的研究论文，报告了未分化结肠炎、克罗恩病和溃疡性结肠炎患儿的单细胞聚类，免疫表型分析和风险基因分析，发现了结肠炎和IBD儿童的常见发病机制和治疗目标。

10

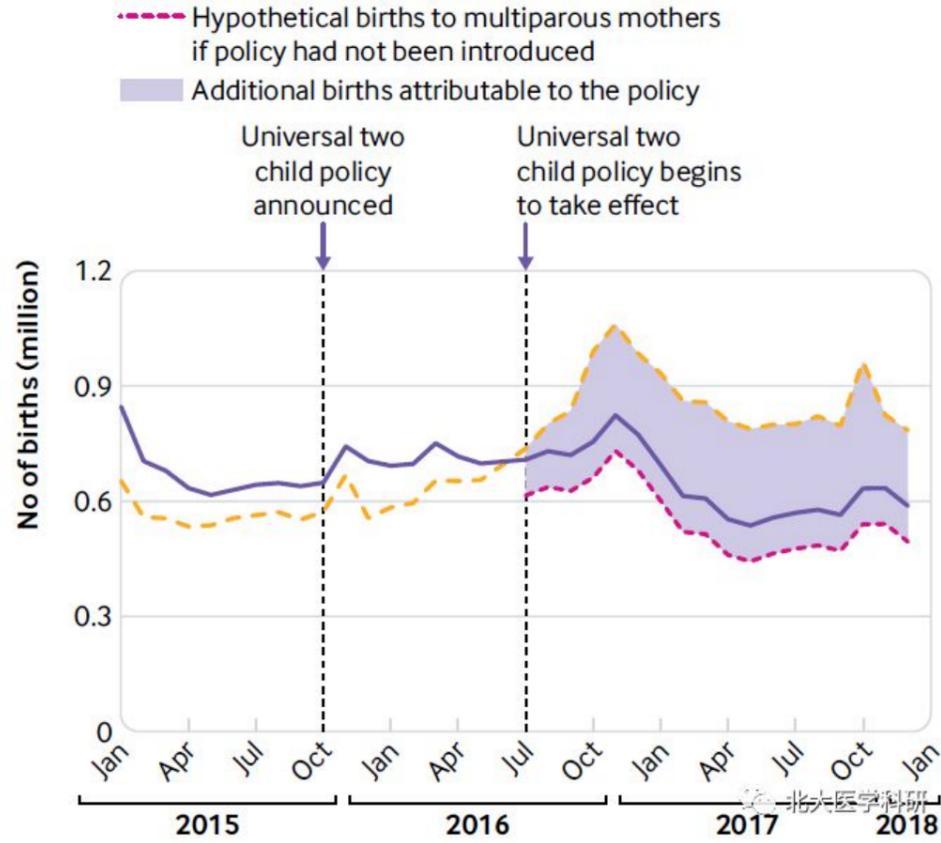




2019年10月31日，第九临床医院北京世纪坛医院彭吉润团队与北京大学生命科学院张泽民、任仙文及勃林格殷格翰药业有限公司合作在Cell发表题为“Landscape and Dynamics of Single Immune Cells in Hepatocellular Carcinoma”的研究论文，结合两种单细胞RNA测序技术，从五个与免疫相关部位为HCC患者产生了CD45 +免疫细胞转录组，为HCC的免疫环境增加了新的维度。



公共卫生学院郭岩团队与北大人口研究所郑晓瑛团队等联合在BMJ发表题为“Contribution of specific diseases and injuries to changes in health adjusted life expectancy in 187 countries from 1990 to 2013: retrospective observational study”的研究论文，系统分析了306种疾病和伤害在1990-2013年间对全球187个出生时健康调整预期寿命（HALE0）变化的贡献。这是学界首次对全球范围内HALE0变化进行疾病和伤害的贡献分析，对开展全球卫生学研究具有重要意义。3



2019年8月，公共卫生学院刘建蒙团队与第三医院乔杰团队等联合在BMJ发表题为“Association of China’s universal two child policy with changes in births and birth related health factors: national, descriptive comparative study”的研究论文，采用双重差分及分段回归模型，估算截至2017年底全面两孩政策所带来的出生增量，评价政策实施前后经产妇、高龄产妇占比及早产率和剖宫产率的变化情况。

Research

Effects of *Helicobacter pylori* treatment and vitamin and garlic supplementation on gastric cancer incidence and mortality: follow-up of a randomized intervention trial

BMJ 2019 ; 366 doi: <https://doi.org/10.1136/bmj.l5016> (Published 11 September 2019)
Cite this as: BMJ 2019;366:l5016

Article	Related content	Metrics	Responses	Peer review
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Wen-Qing Li, professor¹, Jing-Yu Zhang, PhD candidate¹, Jun-Ling Ma, associate professor¹, Zhe-Xuan Li, assistant professor¹, Lian Zhang, professor¹, Yang Zhang, associate professor¹, Yang Guo, PhD candidate¹, Tong Zhou, technician¹, Ji-You Li, professor¹, Lin Shen, professor¹, Wei-Dong Liu, chief physician², Zhong-Xiang Han, associate professor², William J Blot, professor^{3 4}, Mitchell H Gail, senior investigator⁵, Kai-Feng Pan, professor¹, Wei-Cheng You, professor¹

2019年9月12日，北京大学肿瘤医院潘凯枫团队在BMJ发表了题为“Effects of *Helicobacter pylori* treatment and vitamin and garlic supplementation on gastric cancer incidence and mortality: follow-up of a randomized intervention trial”的研究论文，报道了基于中国胃癌高发地区开展的根除幽门螺杆菌感染、补充维生素和大蒜素干预试验，发现根除幽门螺杆菌感染和维生素化学干预可显著降低胃癌的发病和死亡风险，补充大蒜素也显著降低了胃癌的死亡风险，为胃癌的一级预防提供了新的重要证据。

(医学部科研处)

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