single cell sequencing

	NCT Number	Title	Authors	Description	Identifier	Dates
1	pubmed:36063998	Expression of myelin transcription factor 1 and lamin B receptor mediate neural progenitor fate transition in the zebrafish spinal cord pMN domain	Lingyan Xing Rui Chai Jiaqi Wang Jiaqi Lin Hanyang Li Yueqi Wang Biqin Lai Junjie Sun Gang Chen	The pMN domain is a restricted domain in the ventral spinal cord, defined by the expression of the olig2 gene. Though it is known that the pMN progenitor cells can sequentially generate motor neurons and oligodendrocytes, the lineages of these progenitors are controversial and how their progeny are generated is not well understood. Using single-cell sequencing (scRNA-seq), here we identified a previously unknown heterogeneity among pMN progenitors with distinct fates and molecular signatures in...	pmid:36063998 doi:10.1016/j.jbc.2022.102452	Mon, 05 Sep 2022 06:00:00 -0400
2	pubmed:36064410	Steric accessibility of the N-terminus improves the titer and quality of recombinant proteins secreted from Komagataella phaffii	Neil C Dalvie Christopher A Naranjo Sergio A Rodriguez-Aponte Ryan S Johnston J Christopher Love	CONCLUSIONS: Our observations suggest that steric hindrance of proteases in the Golgi that cleave the signal peptide can cause unwanted N-terminal extension and related product variants. We demonstrated that this phenomenon occurs for multiple recombinant proteins, and can be addressed by minimal modification of the N-terminus to improve steric accessibility. This strategy may enable consistent secretion of a broad range of recombinant proteins with the highly productive alpha mating factor...	pmid:36064410 doi:10.1186/s12934-022-01905-2	Mon, 05 Sep 2022 06:00:00 -0400
3	pubmed:36064614	Integrating temporal single-cell gene expression modalities for trajectory inference and disease prediction	Jolene S Ranek Natalie Stanley Jeremy E Purvis	CONCLUSIONS: This work illustrates how integrated temporal gene expression modalities may be leveraged for predicting cellular trajectories and sample-associated perturbation and disease phenotypes. Additionally, this study provides users with practical recommendations for task-specific integration of single-cell gene expression modalities.	pmid:36064614 doi:10.1186/s13059-022-02749-0	Mon, 05 Sep 2022 06:00:00 -0400
4	pubmed:36064702	Single-cell RNA-seq data analysis characterizing bronchoalveolar epithelial cells in patients with SARS-CoV-2 infection	Zhiqin Deng Qin Li Yongshen Li Zhenhan Deng Xiaoqiang Chen Zhe Zhao Guganghui Wang Daping Wang Jianquan Liu Wencui Li	CONCLUSION: This study revealed the changes in epithelial cells derived from alveolar lavage fluid after SARS-CoV-2 infection and the communication relationship with other immune cells.	pmid:36064702 doi:10.1186/s12950-022-00310-1	Mon, 05 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
5	pubmed:36064711	Msx1^{+} stem cells recruited by bioactive tissue engineering graft for bone regeneration	Xianzhu Zhang Wei Jiang Chang Xie Xinyu Wu Qian Ren Fei Wang Xilin Shen Yi Hong Hongwei Wu Youguo Liao Yi Zhang Renjie Liang Wei Sun Yuqing Gu Tao Zhang Yishan Chen Wei Wei Shufang Zhang Weiguo Zou Hongwei Ouyang	Critical-sized bone defects often lead to non-union and full-thickness defects of the calvarium specifically still present reconstructive challenges. In this study, we show that neurotrophic supplements induce robust in vitro expansion of mesenchymal stromal cells, and in situ transplantation of neurotrophic supplements-incorporated 3D-printed hydrogel grafts promote full-thickness regeneration of critical-sized bone defects. Single-cell RNA sequencing analysis reveals that a unique atlas of in...	pmid:36064711 doi:10.1038/s41467-022-32868-y	Mon, 05 Sep 2022 06:00:00 -0400
6	pubmed:36064870	Single-base resolution methylomes of somatic embryogenesis in Theobroma cacao L. reveal epigenome modifications associated with somatic embryo abnormalities	Claudia Garcia Alex-Alan Furtado de Almeida Marcio Costa Dahyana Britto Fabio Correa Pedro Mangabeira Lidiane Silva Jose Silva Stefan Royaert Jean-Philippe Marelli	Propagation by somatic embryogenesis in Theobroma cacao has some issues to be solved, as many morphologically abnormal somatic embryos that do not germinate into plants are frequently observed, thus hampering plant production on a commercial scale. For the first time the methylome landscape of T. cacao somatic embryogenesis was examined, using whole-genome bisulfite sequencing technique, with the aim to understand the epigenetic basis of somatic embryo abnormalities. We identified 873...	pmid:36064870 doi:10.1038/s41598-022-18035-9	Tue, 06 Sep 2022 06:00:00 -0400
7	pubmed:36065294	Protocol for the isolation of CD8+ tumor-infiltrating lymphocytes from human tumors and their characterization by single-cell immune profiling and multiome	Carmen M Anadon Chaomei Zhang Xuefeng Wang Ling Cen Jose R Conejo-Garcia Xiaoqing Yu	Understanding the heterogenicity of tumor-infiltraing lymphocyte (TIL) populations and the immunobiology in human cancer is a key to establish efficient immunotherapies. Here, we have established a protocol for the characterization of CD8^(+) TILs in tumors by single-cell RNA-seq paired to VDJ profiling and chromatin structure including dissociation of tumor biopsies. We have also provided guidance for subsequent fluorescence-activated cell sorting (FACS), single-cell encapsulation,...	pmid:36065294 pmc:PMC9440482 doi:10.1016/j.xpro.2022.101649	Tue, 06 Sep 2022 06:00:00 -0400
8	pubmed:36065405	Tumor Heterogeneity and Drug Resistance Mutations Using ctDNA in Metastatic *EGFR* Mutation-Positive Lung Adenocarcinoma: A Case Report	Jinghua Sun Ge Sun KeMou Lu Lingling Xu XiaoNa Qu Ye Cheng Evenki Pan Peng Yang Tingting Wu Yang Zhang HongMei He	For advanced non-small cell lung cancer (NSCLC) patients with epidermal growth factor receptor (EGFR) mutations, EGFR tyrosine kinase inhibitors (TKIs) have been approved as the standard therapy and shown clinical benefits. However, the emergence of drug resistance is inevitable. Tumor heterogeneity was often observed by imaging method to evaluate the progression of primary and metastatic lesions. Tissue biopsy was also unlikely to accurately capture the complete genomic landscape from a single...	pmid:36065405 pmc:PMC9440701 doi:10.2147/OTT.S376647	Tue, 06 Sep 2022 06:00:00 -0400
9	pubmed:36065649	Efficient Dissociation Protocol for Generation of Single Cell Suspension from Human Thyroid Tissue for Single Cell RNA Sequencing	Shinae Yi Hyun Jung Kim Bon Seok Koo Seong Eun Lee Jahyun Choi Yea Eun Kang	No abstract	pmid:36065649 doi:10.3803/EnM.2022.1536	Tue, 06 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
10	pubmed:36066440	A novel multifunctional haplotyping-based preimplantation genetic testing for different genetic conditions	Pingyuan Xie Xiao Hu Lingyin Kong Yan Mao Dehua Cheng Kai Kang Jing Dai Dingding Zhao Yi Zhang Naru Lu Zhenxing Wan Renqian Du Bo Xiong Jun Zhang Yueqiu Tan Guangxiu Lu Fei Gong Ge Lin Bo Liang Juan Du Liang Hu	STUDY QUESTION: Is there an efficient and cost-effective detection platform for different genetic conditions about embryos?	pmid:36066440 doi:10.1093/humrep/deac190	Tue, 06 Sep 2022 06:00:00 -0400
11	pubmed:36066650	The heterogeneity of microglial activation and its epigenetic and non-coding RNA regulations in the immunopathogenesis of neurodegenerative diseases	Chaoyi Li Jie Ren Mengfei Zhang Huakun Wang Fang Yi Junjiao Wu Yu Tang	Microglia are resident immune cells in the brain and play a central role in the development and surveillance of the nervous system. Extensive gliosis is a common pathological feature of several neurodegenerative diseases, such as Alzheimer's disease (AD), the most common cause of dementia. Microglia can respond to multiple inflammatory insults and later transform into different phenotypes, such as pro- and anti-inflammatory phenotypes, thereby exerting different functions. In recent years, an...	pmid:36066650 doi:10.1007/s00018-022-04536-3	Tue, 06 Sep 2022 06:00:00 -0400
12	pubmed:36066968	BAF60c prevents abdominal aortic aneurysm formation through epigenetic control of vascular smooth muscle cell homeostasis	Guizhen Zhao Yang Zhao Haocheng Lu Ziyi Chang Hongyu Liu Huilun Wang Wenying Liang Yuhao Liu Tianqing Zhu Oren Rom Yanhong Guo Lin Chang Bo Yang Minerva T Garcia-Barrio Jiandie D Lin Y Eugene Chen Jifeng Zhang	Abdominal aortic aneurysm (AAA) is a life-threatening vascular disease. BAF60c, a unique subunit of the SWItch/Sucrose Non-Fermentable (SWI/SNF) chromatin remodeling complex, is critical for cardiac and skeletal myogenesis; yet, little is known about its function in the vasculature and, specifically, in AAA pathogenesis. Here, we found that BAF60c was downregulated in human and mouse AAA tissues, with primary staining to vascular smooth muscle cells (VSMC), confirmed by single-cell...	pmid:36066968 doi:10.1172/JCI158309	Tue, 06 Sep 2022 06:00:00 -0400
13	pubmed:36066976	Resident macrophage subpopulations occupy distinct microenvironments in the kidney	Matthew D Cheung Elise N Erman Kyle H Moore Jeremie Mp Lever Zhang Li Jennifer R LaFontaine Gelare Ghajar-Rahimi Shanrun Liu Zhengqin Yang Rafay Karim Bradley K Yoder Anupam Agarwal James F George	The kidney contains a population of resident macrophages from birth that expands as it grows and forms a contiguous network throughout the tissue. Kidney resident macrophages (KRMs) are important in homeostasis and the response to acute kidney injury (AKI). While the kidney contains many microenvironments, it is unknown whether KRMs are a heterogeneous population differentiated by function and location. We combined single-cell RNA sequencing (scRNAseq), spatial transcriptomics, flow cytometry,...	pmid:36066976 doi:10.1172/jci.insight.161078	Tue, 06 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
14	pubmed:36067339	Plasma CD27, a surrogate of the intratumoral CD27-CD70 interaction, correlates with immunotherapy resistance in renal cell carcinoma	Nadine Benhamouda Ikuan Sam Nicolas Epaillard Alain Gey Letuan Phan Hang Phuong Pham Nadège Gruel Antonin Saldmann Joséphine Pineau Milena Hasan Valentin Quiniou Camille Nevoret Virginie Verkarre Valentina Libri Sebastien Mella Clémence Granier Chloe Broudin Patrice Ravel Eleonore De Guillebon Laetitia Mauge Dominique Helley Bernd Jabla Nathalie Chaput Laurence Albiges Sandrine Katsahian Julien Adam Arnaud Mejean Olivier Adotevi Yann A Vano Stéphane Oudard Eric Tartour	CONCLUSION: In conclusion, we demonstrated that sCD27, a surrogate marker of T-cell dysfunction, is a predictive biomarker of resistance to immunotherapy in RCC. Given the frequent expression of CD70 and CD27 in solid tumors, our findings may be extended to other tumors.	pmid:36067339 doi:10.1158/1078-0432.CCR-22-0905	Tue, 06 Sep 2022 06:00:00 -0400