被提名人简介：

许琛琦博士，男，1977年12月7日出生。自2009年底回国后，在免疫学领域做出了系列性原创成果，阐明了T细胞的活化机制，揭示了肿瘤免疫逃逸的调控机制并发展了肿瘤免疫治疗的新方法。他的工作已发表在 Nature 2018，2016，2013等，申请多项国内外专利，并入选中国科学十大进展。基于这些成果的国际领先地位，许琛琦受邀在Nature Reviews Immunology、Trends in Immunology 等权威综述期刊上发表多篇综述。

1. T 细胞的活化机制

T 细胞是获得性免疫系统的关键效应细胞，具有超高抗原特异性和敏感性的特点，然而其背后的分子基础却不清楚。许琛琦提出信号分子正反馈网络是 T 细胞超高灵敏性的分子基础，并证明了抗原受体 TCR、共刺激受体 CD28 和第二信使 Ca2+之间的双环路正反馈网络对 T 细胞抗原免疫应答的重要性（Nature 2013，Nat Struct Mol Bio 2017）；同时，许琛琦证明了 TCR 的结构多态性和 Lck 激酶的底物选择性是 T 细胞超高特异性的信号基础（PNAS 2017，Cell Res 2017）。这些工作为理解 T 细胞生理功能提供了新的理论。

2. 肿瘤免疫逃逸的调控机制

T 细胞是抗肿瘤免疫反应的主力军，而肿瘤细胞可以通过 PD-1 通路来抑制其活性。肿瘤浸润的 T 细胞异常高表达 PD-1，但其原因还未阐明。许琛琦首次报导了 PD-1 的泛素化降解机制，鉴定了关键的 E3 连接酶 FBXO38；并阐明了 FBXO38 异常下调导致 PD-1 高表达的新机制；同时发现细胞因子白介素 2 可以通过上调 FBXO38 表达来调控 T 细胞的抗肿瘤活性（Nature 2018）。该项成果为临床治疗提供了 FBXO38 这一新靶点，并指出了白介素 2 这一传统药物的新应用前景。

3. 基于代谢调控的肿瘤免疫治疗新方法

现有肿瘤免疫治疗的设计原理都是基于 T 细胞的信号调控，虽然有很好的广谱适用性，但是临床有效率偏低，因此急需发展新的疗法让更多的病人受益。许琛琦创新性地提出代谢调控这一肿瘤免疫治疗的新概念。他证明了胆固醇酯化酶 ACAT1 是肿瘤免疫治疗的新靶点，其小分子抑制剂 Avasimibe 具有很好的抗肿瘤效应；同时发展了代谢调控与信号调控联用这一治疗新策略（Nature 2016）。该项成果开辟了肿瘤免疫治疗的一个新领域，并且发展了新的产品。目前该成果正在由公司进行转化。

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近五年获奖情况

2019，国家“万人计划”领军人才
2018，树兰医学青年奖
2018，第十五届中国青年科技奖
2018，普洛麦格生物化学奖
2018，中青年科技创新领军人才
2017，2014-2016 年度上海市科技系统职工代表大会优秀代表
2017，中源协和生命医学奖
2017，2016 年度中国科学十大进展
2017，2016 年度中国生命科学领域十大进展
2016，谈家桢生命科学奖创新奖
2016，第七届全国优秀科技工作者
2016，第八届上海青年科技英才
2015，国家万人计划“青年拔尖人才”
2015，上海市优秀学术带头人
2014，国家基金委杰出青年基金
2014，中国科学院百人计划结题优秀
2014，明治生命科学奖杰出奖

2014，邹承鲁奖励基金杰出研究论文奖
2013，中国科学院青年科学家奖
2013，“《中国细胞生物学学报》- Cell Signaling Technology”细胞生物学科学研究优秀人才
2013，中国科学院优秀研究生导师奖
2013，中科院大学 BHP Billiton 导师科研奖