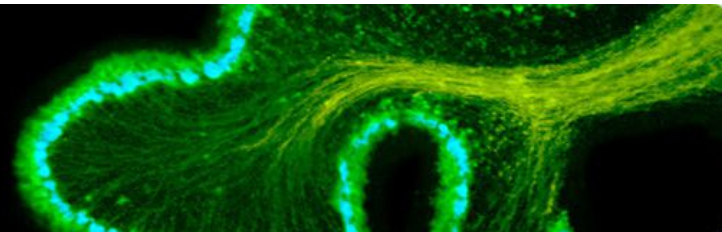




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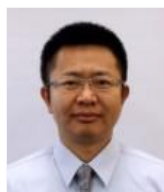
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研究方向

二核苷酸(环二核苷酸CDN和烟酰胺腺嘌呤二核苷酸NAD)是细胞内重要的代谢小分子。细菌衍生的CDN能激活哺乳动物宿主细胞的先天性免疫反应,被认为是治疗耐药菌感染的极具潜力的免疫治疗剂。哺乳动物中内源性CDN,同样在天然免疫信号通路中发挥着重要的第二信使作用,这一全新发现为癌症免疫治疗奠定了理论基础。另一方面,NAD作为生物体中一个至关重要的有机分子,不仅在能量传递中起着关键性作用,还广泛参与多条信号传导途径,进而调控包括基因转录、DNA修复、细胞周期进程、细胞凋亡和代谢在内的多个重要生命过程。与NAD紧密相关的NAD代谢酶被认为是肿瘤和神经退行性疾病治疗中极具开发前景的靶点蛋白。

本实验室将结合生物化学、细胞与分子生物学和有机合成,对二核苷酸(CDN和NAD)及其代谢酶的调控机制和生物功能开展全方位的化学生物学研究工作,从一个全新的视角进一步认识蛋白翻译后修饰、细胞代谢调控、免疫反应和神经组织退化的分子机制,为治疗感染性疾病、自身免疫性疾病和神经退行性疾病提供新的思路,并积极地推动新型治疗药物的开发。

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