

- ron Microbiol, 1998, 64: 2240
- 51 Andersen J B, et al. gfp-based N-acyl homoserine-lactone sensor systems for detection of bacterial communication. Appl Environ Microbiol, 2001, 67: 575
- 52 Wu H, et al. Detection of N-acylhomoserine lactones in lung tissues of mice infected with *Pseudomonas aeruginosa*. Microbiology, 2000, 146: 2481
- 53 Finch R G, et al. Quorum sensing: A novel target for anti-infective therapy. J Antimicrob Chemother, 1998, 42: 569
- 54 Geisenberger O, et al. Production of N-acyl-L-homoserine lactones by *P. aeruginosa* isolates from chronic lung infections associated with cystic fibrosis. FEMS Microbiol Lett, 2000, 184: 273
- 55 Middleton B, et al. Direct detection of N-acylhomoserine lactones in cystic fibrosis sputum. FEMS Microbiol Lett, 2002, 207: 1
- 56 Favre-Bonte S, et al. Detection of *Pseudomonas aeruginosa* cell-to-cell signals in lung tissue of cystic fibrosis patients. Microb Pathog, 2002, 32: 143
- 57 Givskov M, et al. Control of exoenzyme production, motility and cell differentiation in *Serratia liquefaciens*. FEMS Microbiol Lett, 1997, 148: 115
- 58 Parsek M R, et al. Quorum sensing signals in development of *Pseudomonas aeruginosa* biofilms. Methods Enzymol, 1999, 310: 43
- 59 Ochsner U A, et al. Isolation and characterization of a regulatory gene affecting rhamnolipid biosurfactant synthesis in *Pseudomonas aeruginosa*. J Bacteriol, 1994, 176: 2044
- 60 Ochsner U A, et al. Autoinducer-mediated regulation of rhamnolipid biosurfactant synthesis in *Pseudomonas aeruginosa*. Proc Natl Acad Sci USA, 1995, 92: 6424
- 61 Bainton N J, et al. N-(3-oxohexanoyl)-L-homoserine lactone regulates carbapenem antibiotic production in *Erwinia carotovora*. Biochem J, 1992, 288: 997
- 62 Chhabra S R, et al. Autoregulation of carbapenem biosynthesis in *Erwinia carotovora* by analogues of N-(3-oxohexanoyl)-L-homoserine lactone. J Antibiot (Tokyo), 1993, 46: 441
- 63 Pearson J P, et al. *Pseudomonas aeruginosa* cell-to-cell signaling is required for virulence in a model of acute pulmonary infection. Infect Immun, 2000, 68: 4331
- 64 Gray K M, et al. Cell-to-cell signaling in the symbiotic nitrogen-fixing bacterium *Rhizobium leguminosarum*: Autoinduction of a stationary phase and rhizosphere-expressed genes. J Bacteriol, 1996, 178: 372
- 65 Rosemeyer V, et al. *luxI*-and *luxR*-homologous genes of *Rhizobium etli* CNPAF512 contribute to synthesis of autoinducer molecules and nodulation of *Phaseolus vulgaris*. J Bacteriol, 1998, 180: 815
- 66 Schnider-Keel U, et al. Autoinduction of 2, 4-diacetylphloroglucinol biosynthesis in the biocontrol agent *Pseudomonas fluorescens* CHA0 and repression by the bacterial metabolites salicylate and pyoluteorin. J Bacteriol, 2000, 182: 1215

我国科学家发现家族性白内障病因

白内障是我国最常见的致盲眼病，发病机制不清。最近，中国科学院上海生命科学院生物工程中心孔祥银教授和复旦大学附属眼耳鼻喉科医院褚仁远教授等领导的课题组，在国家杰出青年科学基金和国家“八六三”等项目资助下，经过长期的通力合作和不懈努力，对我国的一个先天性白内障家系进行了样本的采集和基因分析，首次发现热休克蛋白转录因子4(HSF4)的基因突变与先天性白内障有关。该成果于2002年发表在“Nature Genetics”(自然遗传学2002, (3): 276~279)上，并被该期刊作为封面文章重点介绍，此项原创性的工作引起了国内外同行的广泛关注。该成果对白内障的发病机理、诊断与治疗将起到极大的推动作用。

(供稿：董尔丹 徐岩英 江虎军)