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| Principal Researcher | Hiroshi Nojima | | | Number of Researchers | 3 | |
| Research Institution • Department • Title | Profesor, Department of Molecular Genetics, Osaka University Research Institute For Microbial Diseases | | | Location of Institution | Suita | |
| Title of Project | Development of nano stepwise subtraction technique | | | | | |
| Abstract of Research Project | <p>We have succeeded in developing an efficient technique denoted as “stepwise subtraction” that allows the isolation of almost all of the genes (specifically expressed cDNAs) whose expressions are induced by a particular stimulus. Based on this, we will develop a novel technique and apply it to basic and practical researches.</p> <p>We aim at micronizing this technique at a nanogram-scale level (one human cell weighs about one nanogram).</p> <p>We will perform functional analyses on the genes isolated by this novel technique to verify its usefulness as a nano-biotechnology.</p> <p>We will apply this technique to wide varieties of research projects. For example, we will comprehensively isolate the specifically expressed cDNAs from the small amount of tissues biopsied from the patients and make microarrays that may be useful to construct a novel diagnosis system based on specific transcriptomal analysis.</p> | | | | | |
| References | <p>1) Fujii, T., Tamura, K., Masai, K., Tanaka, H., Nishimune, Y. and Nojima, H.: Use of stepwise subtraction to comprehensively isolate mouse genes whose transcription is upregulated during spermiogenesis. EMBO Rep. 3(4):367-372, 2002.</p> <p>2) Nojima, H : The stepwise subtraction method as a leading technique in the postgenome era. Jikken-igaku (Japanese) 20: 1142-1144, 2002.</p> | | | | | |
| Term of Project | Fiscal years 2003-2007 . (5years) | | | | | |
| Budget Allocation (in thousand of yen) | FY2003 | FY2004 | FY2005 | FY2006 | FY2007 | TOTAL |
| | 27,700 | 13,800 | 13,800 | 13,800 | 13,800 | 82,900 |
| Homepage Address | http://www.biken.osaka-u.ac.jp/kenkyu/bio/dmg-021208/dmg-021107.htm | | | | | |