



## Non-Confidential Technology Disclosure

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| <b>Title</b>            | Genetic Inhibition by Double-Stranded RNA   |
| <b>Investigators</b>    | Craig C. Mello, Ph.D., Department of Molecular Medicine;<br>Andrew Fire, Ph.D., Carnegie Institute of Washington et al.   |
| <b>Description</b>      | The invention describes a method of interfering with gene expression that is more efficient and less problematic than other currently practiced techniques, such as antisense and co-suppression.   |
| <b>Application</b>      | The described method can be used to efficiently inhibit the expression of a specific target gene by introducing the appropriate double-stranded RNA (dsRNA) molecules into the cell. This invention could be used in any situation in which disruption of gene expression is required and for which traditional antisense approaches have been used. These include basic research on specific gene products, the creation of disease models via genetic knockouts, and the development of human therapeutics. |
| <b>Advantage</b>        | The present invention is at least 100-fold more effective than equivalent antisense approaches. Furthermore, dsRNA-mediated inhibition of gene expression occurs efficiently under physiological conditions, overcomes the delivery problem of traditional genetic interference methods and has been used to effectively inhibit the expression of eighteen different genes.  |
| <b>Publication</b>      | Fire, A., Xu, S., Montgomery, M.K., Kostas, S., Driver, S.E. and Mello, C.C. (1998). Potent and specific interference in <i>C. elegans</i> mediated by double stranded RNA, Nature 391, 806-810.  |
| <b>Patent Status</b>    | US Pat. No. 6,506,559   |
| <b>Licensing Status</b> | Available to License  |
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