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In the September 11 Proceedings of the National Academy of Sciences, Shelley Cao and researchers, from the University of California, Riverside, report the use of microarray analysis to investigate gene profiles associated with aging (*Proc Natl Acad Sci USA* 2001, **98:**10630-10635). They compared the expression of 11,000 genes in mRNA samples from the livers of young (7 months) and old (27 months) mice. The expression of 20 known genes increased with age and 26 decreased; these included genes associated with the inflammatory response, the stress response, the cell cycle, xenobiotic metabolism and apoptosis regulation. Many of these effects were reversed by caloric restriction which is known to extend life span. Furthermore, even short term caloric restriction had a similar effect on gene expression. The authors suggest that these results may help identify drugs and treatments that mimic the effects of caloric restriction.

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