

Contents

List of Contributors	vi
Preface	x
Chapter 1	1
Evaluation of SAGE Tags for Transcriptome Study	
<i>Erin D. Pleasance and Steven J.M. Jones</i>	
Chapter 2	29
CAGE: A Novel Approach for Rapid Gene Discovery and Gene Network Identification	
<i>Matthias Harbers and Piero Carninci</i>	
Chapter 3	77
SuperSAGE: A Potent Transcriptome Tool for Eukaryotic Organisms	
<i>Hideo Matsumura, Stefanie Reich, Monika Reuter, Detlev H. Krüger, Peter Winter, Günter Kahl, and Ryohei Terauchi</i>	
Chapter 4	91
An Improved Protocol for SAGE Tag-to-gene Allocation	
<i>Ute Kannbley, Jason R. Potas, and George Trendelenburg</i>	
Chapter 5	103
Using HPLC to Purify Ditags for SAGE Library Construction	
<i>Mette Damgaard Nielsen and Knud Josefsen</i>	
Chapter 6	109
Web Tools for Statistical Analysis of SAGE Data	
<i>Chiara Romualdi and Stefania Bortoluzzi</i>	
Chapter 7	129
Conversion of MPSS Orphan Tags into 3' ESTs	
<i>Anamaria A. Camargo, Ana Paula M. Silva, Dirce M. Cararro, Jianjun Chen, and San Ming Wang</i>	
Chapter 8	139
Mathematical Analysis and Modeling of SAGE Transcriptome	
<i>Vladimir A. Kuznetsov</i>	
Chapter 9	181
Statistical Analysis of SAGE Data	
<i>Michael Man</i>	
Chapter 10	189
Studies of Plant Gene Expression Using SAGE	
<i>W. Walter Lorenz and Jeffrey F.D. Dean</i>	

Chapter 11	207
SAGE Analysis of Embryonic Stem Cells	
<i>Kirill V. Tarasov, Sergey V. Anisimov, Yelena S. Tarasova, Daniel R. Riordon, Antoine Younes, Michael D. Stern, Anna M. Wobus, and Kenneth R. Boheler</i>	
Chapter 12	229
Determining Transcriptome Differences Between Brain Territories	
<i>Michel de Chaldée, Marie-Claude Gaillard, and Jean-Marc Elalouf</i>	
Chapter 13	239
Identifying Selection Signatures in Mammalian Genes Through the Analysis of Patterns of Gene Expression	
<i>Araxi O. Urrutia and Lawrence D. Hurst</i>	
Chapter 14	265
SAGE Identifies Transcripts Involved in Enhanced Performance of Endurance Athlete's Muscle	
<i>Jonny St-Amand, Hiroaki Tanaka, Naoko Shono, Eric E. Snyder, Munehiro Shindo and Mayumi Yoshioka</i>	
Chapter 15	281
Using SAGE to Analyze Signaling and Development in <i>Drosophila</i>	
<i>Heinrich Jasper</i>	
Chapter 16	303
Use of SAGE Technology to Reveal Changes in Gene Expression in <i>Arabidopsis</i> Undergoing Cold Stress	
<i>Dong-Hee Lee, Yun-Jung Byun, Ji-Yeon Lee, and Sun-Hee Jung</i>	
Chapter 17	341
SAGE Analysis of Age- and Sex-Associated Changes in Cardiac Gene Expression	
<i>Sergey V. Anisimov, Kirill V. Tarasov, Edward G. Lakatta and Kenneth R. Boheler</i>	
Chapter 18	365
Reverse Transcriptome: Identification of Novel Transcripts Through Novel SAGE Tags	
<i>San Ming Wang</i>	
Index	373