

Zohar Yakhini
List of publications
Feb 2017

Journal Publications

2017

1. I Kifer, RM Branca, A Ben-Dor, L Zhai, P Xu, J Lehtio, **Z Yakhini**,
Optimizing analytical depth and cost efficiency of IEF-LC/MS proteomics
doi: 10.1109/TCBB.2015.2452901
IEEE Transactions on Comp Bio and Bioinformatics
2. M Polishchuk, I Paz, R Kohen, R Mesika, **Z Yakhini**, Y Mandel-Gutfreund,
A Combined Sequence and Structure Based Method for Discovering Enriched Motifs in RNA from in-vivo Binding Data
doi: 10.1016/j.ymeth.2017.03.003
Methods 2017
Methods
3. M Levo, T Avnit-Sagi, M Lotan-Pompan, Y Kalma, A Weinberger, **Z Yakhini**, E Segal,
Systematic Investigation of Transcription Factor Activity in the Context of Chromatin Using Massively Parallel Binding and Expression Assays
doi: 10.1016/j.molcel.2017.01.007
Molecular Cell

2016

4. Rui Jiang, Yoav Linzon, Edward Vitkin, **Zohar Yakhini**, Alexandra Chudnovsky, Alexander Golberg,
Thermochemical hydrolysis of macroalgae Ulva for biorefinery: Taguchi robust design method
doi: 10.1038/srep27761
Sci Reports 2016
5. Aldema Sas-Chen, Miriam R Aure, Limor Leibovich, Silvia Carvalho, Yehoshua Eneka, Cindy Körner, Maria Polycarpou-Schwarz, Sara Lavi, Nava Nevo, Yuri Kuznetsov, Justin Yuan, Francisco Azuaje, Igor Ulitsky, Sven Diederichs, Stefan Wiemann, **Zohar Yakhini**, Vessela N Kristensen, Anne-Lise Børresen-Dale, Yosef Yarden,
LIMIT is a novel metastasis inhibiting lncRNA suppressed by EGF and downregulated in aggressive breast cancer
doi: 10.15252/emmm.201606198
EMBO Mol Med 2016
6. Dalia Cohn-Alperovich, Alona Rabner, Ilona Kifer, Yael Mandel-Gutfreund, **Zohar Yakhini**,
Mutual enrichment in aggregated ranked lists with applications to gene expression regulation
doi: 10.1093/bioinformatics/btw435
Bioinformatics 2016
7. Shay Ben-Elazar, Benny Chor, **Zohar Yakhini**,
Extending partial haplotypes to full genome haplotypes using chromosome conformation capture data

doi: 10.1093/bioinformatics/btw453

Bioinformatics 2016

8. Weingarten-Gabbay, Elias-Kirma, Nir, Gritsenko, Stern-Ginossar, **Yakhini**, Weinberger, Segal, Systematic discovery of cap-independent translation sequences in human and viral genomes, doi: 10.1126/science.aad4939
Science 2016

2015

9. Haakensen Vilde D, Steinfeld Israel, Saldova Radka, Shehni Akram Asadi, Kifer Ilona, Naume Bjørn, Rudd Pauline M, Børresen-Dale Anne-Lise, **Yakhini Zohar**, Serum N-glycan analysis in breast cancer patients—Relation to tumour biology and clinical outcome, doi: 10.1016/j.molonc.2015.08.002
Molecular Oncology 2015
10. Levo, Zalckvar, Sharon, Machado, Kalma, Lotam-Pompan, Weinberger, **Yakhini**, Rohs, Segal, Unraveling determinants of transcription factor binding outside the core binding site, doi: 10.1101/gr.185033.114
Genome Research 2015
11. Shalem, Sharon, Lubliner, Regev, Lotan-Pompan, **Yakhini**, Segal, Systematic Dissection of the Sequence Determinants of Gene 3'End Mediated Expression Control, doi: 10.1371/journal.pgen.1005147
PLoS Genetics 2015
12. Vitkin E, Golberg A, **Yakhini Z**, BioLEGO—a web-based application for biorefinery design and evaluation of serial biomass fermentation, doi: 10.1142/S2339547815400038
Technology 2015
13. Drory-Retwitzer, Polishchuk, Churkin, Kifer, **Yakhini**, Barash, RNAPattMatch: a web server for RNA sequence/structure motif detection based on pattern matching with flexible gaps, doi: 10.1093/nar/gkv435,
Nucleic Acids Research 2015
14. I Steinfeld, R Navon, ML Creech, **Z Yakhini**, A Tsalenko, ENViz: A Cytoscape App for Integrated Statistical Analysis and Visualization of Sample-Matched Data with Multiple Data Types, doi: 10.1093/bioinformatics/btu853
Bioinformatics 2015
15. Drory-Retwitzer M, Kifer I, Sengupta S, **Yakhini Z**, Barash D, An Efficient Minimum Free Energy Structure-Based Search Method for Riboswitch Identification Based on Inverse RNA Folding, doi: 10.1371/journal.pone.0134262
PLoS One 2015

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16. L Leibovich, **Z Yakhini**, Mutual enrichment in ranked lists and the statistical assessment of position weight matrix motifs, doi: 10.1186/1748-7188-9-11

Algorithms in Molecular Biology 2014

Conference version: WABI 2013

17. Sharon, D van Dijk, Y Kalma, L Keren, O Manor, **Z Yakhini**, E Segal,
Probing the effect of promoters on noise in gene expression using thousands of designed sequences,
doi: 10.1101/gr.168773.113
Genome Research 2014
18. Radka Saldova, Akram Asadi Shehni, Vilde D Haakensen, Israel Steinfeld, Mark Hilliard, Ilona Kifer, Åslaug Helland, **Zohar Yakhini**, Anne-Lise Børresen-Dale, Pauline M Rudd,
Association of N-glycosylation with breast carcinoma and systemic features using high-resolution quantitative UPLC,
doi: 10.1021/pr401092y
Journal of Proteome Research 2014
19. D Neiman, R Straussman, I Steinfeld, M Ruvolo, D Roberts, **Z Yakhini**, H Cedar,
Molecular rules governing de novo methylation in cancer,
doi: 10.1158/0008-5472.CAN-13-3042
Cancer Research 2014
20. Tahiri A, Leivonen SK, Lüders T, Steinfeld I, Ragle Aure M, Geisler J, Mäkelä R, Nord S, Riis ML, **Yakhini Z**, Kleivi Sahlberg K, Børresen-Dale AL, Perälä M, Bukholm IR, Kristensen VN,
Deregulation of cancer-related miRNAs is a common event in both benign and malignant human breast tumors,
doi: 10.1093/carcin/bgt333,
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21. Golberg, Vitkin, Linshiz, Khan, Hillson, **Yakhini**, Yarmush
Proposed design of distributed macroalgal biorefineries: Thermodynamics, bioconversion technology, and sustainability implications for developing economies,
doi: 10.1002/bbb.1438
Biofuels, bioproducts and biorefineries 2014
22. Vitkin, Ben-Dor, Shmoish, Hartmann, **Yakhini**, Wudy, Hochberg
Peer group normalization and urine to blood context in steroid metabolomics: The case of CAH and obesity
doi: 10.1016/j.steroids.2014.07.003
Steroids 2014

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23. Israel Steinfeld, Roy Navon, Robert Ach, **Zohar Yakhini**,
miRNA target enrichment analysis reveals directly active miRNAs in health and disease,
doi: 10.1093/nar/gks1142
Nucleic Acids Research 2013
24. Limor Leibovich, Inbal Paz, **Zohar Yakhini**, Yael Mandel-Gutfreund,
DRIMust: a web server for discovering rank imbalanced motifs using suffix trees,
doi: 10.1093/nar/gkt407
Nucleic Acids Research 2013
25. Ben-Elazar, **Yakhini**, Yanai
Spatial localization of co-regulated genes exceeds genomic gene clustering in the *Saccharomyces cerevisiae* genome
doi: 10.1093/nar/gks1360
Nucleic Acids Research 2013

26. Ragle-Aure M, Steinfeld I, Baumbusch L, Liestøl K, Lipson D, Nyberg S, Naume B, Kleivi-Sahlberg K, Kristensen VN, Børresen-Dale AL, Lingjaerde OC, **Yakhini Z**
Identifying in-trans process associated genes in breast cancer by integrated analysis of copy number and expression data
 doi: 10.1371/journal.pone.0053014
PLoS One 2013
27. Johansson HJ, Sanchez BC, Mundt F, Forshed J, Kovacs A, Panizza E, Hultin-Rosenberg L, Lundgren B, Martens U, Máthé G, **Yakhini Z**, Helou K, Krawiec K, Kanter L, Hjerpe A, Stål O, Linderholm BK, Lehtiö J.
Retinoic acid receptor alpha is associated with tamoxifen resistance in breast cancer
 doi: 10.1038/ncomms3175
Nature Communications 2013

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28. Limor Leibovich, **Zohar Yakhini**,
Efficient motif search in ranked lists and applications to variable gap motifs,
 doi: 10.1093/nar/gks206
Nucleic Acids Research 2012
29. Yonatan Aumann, Moshe Lewenstein, Oren Melamud, Ron Pinter, **Zohar Yakhini**,
Dotted interval graphs,
 doi: 10.1145/2151171.2151172
 SODA 2005 (Conference version) and *ACM Transactions on Algorithms* 2012
30. Eilon Sharon, Yael Kalma, Ayala Sharp, Tali Raveh-Sadka, Michal Levo, Danny Zeevi, Leeat Keren, **Zohar Yakhini**, Adina Weinberger, Eran Segal,
Inferring gene regulatory logic from high-throughput measurements of thousands of systematically designed promoters,
 doi: 10.1038/nbt.2205
Nature Biotechnology 2012
31. Einat I Rabinovich, Maria G Kapetanaki, Israel Steinfeld, Kevin F Gibson, Kusum V Pandit, Guoying Yu, **Zohar Yakhini**, Naftali Kaminski,
Global methylation patterns in idiopathic pulmonary fibrosis,
 doi: 10.1371/journal.pone.0033770
PLoS One 2012
32. Farkash-Amar S, David Y, Polten A, Hezroni H, Eldar YC, Meshorer E, **Yakhini Z**, Simon I,
Systematic determination of replication activity type highlights interconnections between replication, chromatin structure and nuclear localization,
 doi: 10.1371/journal.pone.0048986
PLoS One 2012
33. Pareja, Ferraro, Rubin, Cohen-Dvashi, Zhang, Aulmann, Ben-Chetrit, Pines, Navon, Crosetto, Kostler, Carvalho, Lavi, Scmitt, Dikic, **Yakhini**, Sinn, Mills, Yarden
Deubiquitination of EGFR by Cezanne-1 contributes to cancer progression
 doi: 10.1038/onc.2011.587
Oncogene 2012

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34. Espen Enerly, Israel Steinfeld, Kristine Kleivi, Suvi-Katri Leivonen, Miriam R Aure, Hege G Russnes, Jo Anders Rønneberg, Hilde Johnsen, Roy Navon, Einar Rødland, Rami Mäkelä, Bjørn Naume, Merja Perälä, Olli Kallioniemi, Vessela N Kristensen, **Zohar Yakhini**, Anne-Lise Børresen-Dale, miRNA-mRNA integrated analysis reveals roles for miRNAs in primary breast tumors, doi: 10.1371/journal.pone.0016915
PLoS One 2011
35. Eldrid Borgan, Roy Navon, Hans Kristian Moen Vollan, Ellen Schlichting, Torill Sauer, **Zohar Yakhini**, Ole Christian Lingjærde, Therese Sørli, Anne-Lise Børresen-Dale, Ischemia caused by time to freezing induces systematic microRNA and mRNA responses in cancer tissue
doi: 10.1016/j.molonc.2011.08.004
Molecular Oncology 2011
36. Yosefzon, Koh, Chritton, Lande, Leibovich, Barziv, Petzold, **Yakhini**, Mandel-Gutfreund, Wickens, Arava
Divergent RNA binding specificity of yeast Puf2p
doi: 10.1261/rna.2700311
RNA Journal 2011
37. **Zohar Yakhini**, Igor Jurisica
Cancer Computational Biology
doi: 10.1186/1471-2105-12-120
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Comparative analysis of DNA replication timing reveals conserved large-scale chromosomal architecture
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PLoS Genetics 2010
39. Roi Avraham, Aldema Sas-Chen, Ohad Manor, Israel Steinfeld, Reut Shalgi, Gabi Tarcic, Noa Bossel, Amit Zeisel, Ido Amit, Yaara Zwang, Espen Enerly, Hege G Russnes, Francesca Biagioni, Marcella Mottolese, Sabrina Strano, Giovanni Blandino, Anne-Lise Børresen-Dale, Yitzhak Pilpel, **Zohar Yakhini**, Eran Segal, Yosef Yarden,
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Science Signaling 2010
40. L Leibovich, Y Mandel-Gutfreund, **Z Yakhini**
A structural-based statistical approach suggests a cooperative activity of PUM1 and miR-410 in human 3'-untranslated regions, doi: 10.1186/1758-907X-1-17
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41. Buganim, Goldstein, Lipson, Milyavski, Polak-Charcon, Mardoukh, Solomon, Kalo, Madar, Brosh, Perelman, Navon, Goldfinger, Barshak, **Yakhini**, Rotter,
A novel translocation breakpoint within the BPTF gene is associated with a pre-malignant phenotype
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43. Tiosano, Navon, Flor, Knopf, Hartmann, Wudy, Yakhini, Hochberg,
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44. Roy Navon, Hui Wang, Israel Steinfeld, Anya Tsalenko, Amir Ben-Dor, **Zohar Yakhini**,
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45. Eran Eden, Roy Navon, Israel Steinfeld, Doron Lipson, **Zohar Yakhini**,
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46. Ravid Straussman, Deborah Nejman, Douglas Roberts, Israel Steinfeld, Barak Blum, Nissim Benvenisty, Itamar Simon, **Zohar Yakhini**, Howard Cedar,
Developmental programming of CpG island methylation profiles in the human genome,
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Nature structural & molecular biology 2009
47. Nachtomy O, Ramati Y, Shavit A, **Yakhini Z**
It Takes Two to Tango: Genotyping and Phenotyping in Genome-Wide Association Studies
 doi: 10.1162/biot.2009.4.3.294
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48. Israel Steinfeld, Roy Navon, Diego Ardigò, Ivana Zavaroni, **Zohar Yakhini**,
Clinically driven semi-supervised class discovery in gene expression data,
 doi: 10.1093/bioinformatics/btn279
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49. Shlomit Farkash-Amar, Doron Lipson, Andreas Polten, Alon Goren, Charles Helmstetter, **Zohar Yakhini**, Itamar Simon,
Global organization of replication time zones of the mouse genome,
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50. Perry, Ben-Dor, Tsalenko, Sampas, Rodrigez-Revenga, Tran, Scheffer, Steinfeld, Tsang, Yamada, park, Kim, Seo, **Yakhini**, Bruhn, Laderman, Lee,
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54. Dehan, Ben-Dor, Liao, Lipson, Frimer, Reinstein, Simansky, Krupsky, Yaron, Friedman, Rechavi, Perlman, Aviram-Goldring, Izraeli, Bittner, **Yakhini**, Kaminski,
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55. Oleg Rokhlenko , Ydo Wexler , **Zohar Yakhini**,
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Selected Refereed Conference Papers

(only includes papers for which there is no journal version or where one is in the works)

1. Ilona Kifer, Rui M Branca, Ping Xu, Amir Ben-Dor, Janne Lehtio, **Zohar Yakhini**,
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Invited Talks

1. Institute Pasteur Colloquium Lecture, Paris Feb 2016
2. Simons Institute Workshop on Challenges in Computational Cancer Biology, Berkeley 2016
3. Bellairs workshop on breast cancer genomics and informatics, organized by McGill Univ. Bellairs, Barbados, 2005 and 2015
4. "Bioinformatics and molecular measurement", The 15th meeting of the Israeli Society of Bioinformatics and Computational Biology, Beer-Sheva, Israel, 2013,
5. "miRNA data analysis", ESF RNA Bioinformatics Workshop, Antalya, Turkey 2008
6. "Comparative Genomic Hybridization and Related Computational Aspects", GENSIPS 2006.
7. "Microarrays: evolving applications, evolving interpretations", in the 2005 Annual Israeli Bioinformatics Symposium, Ben Gurion Univ, May 2005.
8. Tel-Hai Bioinformatics Workshop, Tel-Hai, Israel 2005.
9. "Variation in mRNA expression levels: the role of sequence motifs and of DNA copy number", The First Annual RECOMB Satellite Workshop on Regulatory Genomics, UCSD, San Diego, USA, 2004.
10. The Design and Application of Microarray Hybridization Assays: the Computational Viewpoint, Bertinoro Computational Biology Meeting, Bertinoro, Italy 2003.
11. "Microarrays: From the Inkjet Head to the Doctor's Office", Israel Biotechnology Conference, Tel Aviv, May 2003.
12. "Interpretation and Evaluation of Gene Expression Data", in ISAC XX, Montpellier, France, 2000.
13. "Analysis of Gene Expression Data: Clustering and Beyond", in Nature Genetics Microarray Meeting, Arizona, USA 1999.