

A.L. TARCA

PUBLICATIONS

Peer-reviewed Journal articles in Chronological Order

1. **Tarca AL**, Grandjean BPA, Larachi F. Integrated genetic algorithm - Artificial neural network strategy for modeling important multiphase-flow characteristics. *Industrial and Engineering Chemistry Research* 2002;41(10):2543-51.
2. **Tarca AL**, Grandjean BPA, Larachi F. Reinforcing the phenomenological consistency in artificial neural network modeling of multiphase reactors. *Chemical Engineering and Processing* 2003;42(8-9):653-62.
3. **Tarca AL**, Grandjean BPA, Larachi F. Artificial neural network meta models to enhance the prediction and consistency of multiphase reactor correlations. *Industrial and Engineering Chemistry Research* 2003;42(8):1707-12.
4. **Tarca AL**, Grandjean BPA, Larachi F. Designing supervised classifiers for multiphase flow data classification. *Chemical Engineering Science* 2004;59(16):3303-13.
5. **Tarca AL**, Grandjean BPA, Faical L. Embedding monotonicity and concavity in the training of neural networks by means of genetic algorithms: application to multiphase flow. *Computers and Chemical Engineering* 2004;28(9):1701-13.
6. **Tarca AL**, Cooke JE, Mackay J. A robust neural networks approach for spatial and intensity-dependent normalization of cDNA microarray data. *Bioinformatics* 2005;21(11):2674-83.
7. **Tarca AL**, Grandjean BPA, Larachi F. Feature selection for multiphase reactors data classification. *Industrial and Engineering Chemistry Research* 2005;44(4):1073-84.
8. **Tarca AL**, Romero R, Draghici S. Analysis of microarray experiments of gene expression profiling. *Am J Obstet Gynecol* 2006;195(2):373-88.
9. Khatri P, Desai V, **Tarca AL**, Sellamuthu S, Wildman DE, Romero R, Draghici S. New Onto-Tools: Promoter-Express, nsSNPCounter and Onto-Translate. *Nucleic Acids Res* 2006;34(Web Server issue):W626-W631.
10. Romero R, **Tarca AL**, Tromp G. Insights into the physiology of childbirth using transcriptomics. *PLoS Med* 2006;3(6):e276.
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12. Lin HS, Talwar HS, **Tarca AL**, Ionan A, Chatterjee M, Ye B, Wojciechowski J, Mohapatra S, Basson MD, Yoo GH, Peshek B, Lonardo F, Pan CJ, Folbe AJ, Draghici S, Abrams J, Tainsky MA. Autoantibody approach for serum-based detection of head and neck cancer. *Cancer Epidemiol Biomarkers Prev* 2007;16(11):2396-405.
13. Draghici S, Khatri P, **Tarca AL**, Amin K, Done A, Voichita C, Georgescu C, Romero R. A systems biology approach for pathway level analysis. *Genome Res* 2007;17(10):1537-45.
14. Montenegro D, Romero R, Pineles BL, Tarca AL, Kim YM, Draghici S, Kusanovic JP, Kim JS, Erez O, Mazaki-Tovi S, Hassan S, Espinoza J, Kim CJ. Differential expression of microRNAs with progression of gestation and inflammation in the human chorioamniotic membranes. *Am J Obstet Gynecol* 2007;197(3):289-6.
15. Khatri P, Draghici S, **Tarca AL**, Hassan SS, Romero R. A system biology approach for the steady-state analysis of gene signaling networks. *Lecture Notes in Computer Science*; 2007,32-41.
16. Hassan SS, Romero R, **Tarca AL**, Draghici S, Pineles B, Bugrim A, Khalek N, Camacho N, Mittal P, Yoon BH, Espinoza J, Kim CJ, Sorokin Y, Malone J, Jr. Signature pathways identified from gene expression

profiles in the human uterine cervix before and after spontaneous term parturition. *Am J Obstet Gynecol* 2007;197(3):250-7.

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18. **Tarca AL**, Carey VJ, Chen XW, Romero R, Draghici S. Machine learning and its applications to biology. *PLoS Comput Biol* 2007;3(6):e116.
19. Pineles BL, Romero R, Montenegro D, **Tarca AL**, Han YM, Kim YM, Draghici S, Espinoza J, Kusanovic JP, Mittal P, Hassan SS, Kim CJ. Distinct subsets of microRNAs are expressed differentially in the human placentas of patients with preeclampsia. *Am J Obstet Gynecol* 2007;196(3):261-6.
20. Han YM, Romero R, Kim JS, **Tarca AL**, Kim SK, Draghici S, Kusanovic JP, Gotsch F, Mittal P, Hassan SS, Kim CJ. Region-specific gene expression profiling: novel evidence for biological heterogeneity of the human amnion. *Biol Reprod* 2008;79(5):954-61.
21. Than NG, Romero R, Erez O, Weckle A, **Tarca AL**, Hotra J, Abbas A, Han YM, Kim SS, Kusanovic JP, Gotsch F, Hou Z, Santolaya-Forgas J, Benirschke K, Papp Z, Grossman LI, Goodman M, Wildman DE. Emergence of hormonal and redox regulation of galectin-1 in placental mammals: implication in maternal-fetal immune tolerance. *Proc Natl Acad Sci U S A* 2008;105(41):15819-24.
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25. Kim JS, Romero R, **Tarca AL**, LaJeunesse C, Han YM, Kim MJ, Suh YL, Draghici S, Mittal P, Gotsch F, Kusanovic JP, Hassan S, Kim CJ. Gene expression profiling demonstrates a novel role for foetal fibrocytes and the umbilical vessels in human fetoplacental development. *J Cell Mol Med* 2008;12(4):1317-30.
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36. Mittal P, Romero R, Mazaki-Tovi S, Tromp G, **Tarca AL**, Kim YM, Chaiworapongsa T, Kusanovic JP, Erez O, Than NG, Hassan SS. Fetal membranes as an interface between inflammation and metabolism: increased Aquaporin 9 expression in the presence of spontaneous labor at term and chorioamnionitis. *J Matern Fetal Neonatal Med* 2009; 22(12):1167-75.
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Book Chapters

1. **Tarca AL**, Draghici S, Romero R, Tainsky MA. Spatial Detrending and Normalization Methods for Two-Channel DNA and Protein Microarray Data. In: Phillip Stafford, editor. *Methods in Microarray Normalization*. Taylor and Francis CRC Press; 2008.
2. **Tarca AL**, Draghici S, Romero R. Developing classifiers for the detection of cancer using multi-analytes, *Methods in Molecular Biology*. 2009;520:259-72.