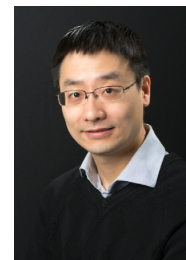


Jing Tang  
Docent, PhD  
Institute for Molecular Medicine Finland (FIMM)  
Postal address: Tukholmankatu 8, Biomedicum Helsinki 2U, FI-00014, Helsinki  
Finland  
Email: jing.tang@helsinki.fi



## Qualifications

Biometry, Docentship, University of Helsinki  
Award Date: 1 Feb 2016

Statistics, PhD, Bayesian statistical analysis of bacterial populations, University of Helsinki  
Award Date: 15 Jun 2009

### Principal Investigator

Period : 16.02.2016 - 31.08.2019 in Institute for Molecular Medicine Finland

### Principal Investigator

Period : 19.02.2016 - \* in Medicum

## Publications

### **DTIAM: a unified framework for predicting drug-target interactions, binding affinities and drug mechanisms**

Lu, Z., Song, G., Zhu, H., Lei, C., Sun, X., Wang, K., Qin, L., Chen, Y., Tang, J. & Li, M., 15 Mar 2025, In: Nature Communications. 16, 1, 17 p., 2548.

### **Proposal for a framework of contextual metadata in selected research infrastructures of the life sciences and the social sciences & humanities: International Journal of Metadata, Semantics and Ontologies**

Ohmann, C., Panagiotopoulou, M., Canham, S., Holub, P., Majcen, K., Saunders, G., Fratelli, M., Tang, J., Gribbon, P., Karki, R., Kleemola, M., Moilanen, K., Broeder, D., Daelemans, W. & Fizez, P., 31 Jul 2024, In: International Journal of Metadata, Semantics and Ontologies. 16, 4, p. 261-277 17 p.

### **SAFER: sub-hypergraph attention-based neural network for predicting effective responses to dose combinations**

Tang, Y.-C., Li, R., Tang, J., Zheng, W. J. & Jiang, X., 30 Jul 2024, In: BMC Bioinformatics. 25, 1, 19 p., 250.

### **Herb-CMap: a multimodal fusion framework for deciphering the mechanisms of action in traditional Chinese medicine using Suhuang antitussive capsule as a case study**

Wang, Y., Sui, Y., Yao, J., Jiang, H., Tian, Q., Tang, Y., Ou, Y., Tang, J. & Tan, N., 29 Jul 2024, In: Briefings in Bioinformatics. 25, 5, 12 p., bbae362.

### **Mining drug-target interactions from biomedical literature using chemical and gene descriptions-based ensemble transformer model**

Aldahdooh, J., Tanoli, Z. & Tang, J., 24 Jul 2024, In: Bioinformatics advances. 4, 1, 13 p., vbae106.

### **The combination therapy using tyrosine kinase receptors inhibitors and repurposed drugs to target patient-derived glioblastoma stem cells**

Kucinska, M., Pospieszna, J., Tang, J., Lisiak, N., Toton, E., Rubis, B. & Murias, M., 13 Jun 2024, In: Biomedicine & Pharmacotherapy. 176, 26 p., 116892.

### **Opening the black box: spatial transcriptomics and the relevance of AI-detected prognostic regions in high grade serous carcinoma**

Laury, A. R., Zheng, S., Aho, N., Fallegger, R., Hänninen, S., Saez-Rodriguez, J., Tanevski, J., Youssef, O., Tang, J. & Carpén, O. M., 3 May 2024, In: Modern Pathology. 37, 7, 12 p., 100508.

### **A critical assessment of Traditional Chinese Medicine databases as a source for drug discovery**

Wang, Y., Liu, M., Jafari, M. & Tang, J., 26 Apr 2024, In: Frontiers in Pharmacology. 15, 14 p., zrae025.

**BPR3P0128, a non-nucleoside RNA-dependent RNA polymerase inhibitor, inhibits SARS-CoV-2 variants of concern and exerts synergistic antiviral activity in combination with remdesivir**

Tang, W.-F., Chang, Y.-H., Lin, C.-C., Jheng, J.-R., Hsieh, C.-F., Chin, Y.-F., Chang, T.-Y., Lee, J.-C., Liang, P.-H., Lin, C.-Y., Lin, G.-H., Cai, J.-Y., Chen, Y.-L., Chen, Y.-S., Tsai, S.-K., Liu, P.-C., Yang, C.-M., Shadbahr, T., Tang, J. & Hsu, Y.-L. & 8 others, Huang, C.-H., Wang, L.-Y., Kau, J.-H., Hung, Y.-J., Lee, H.-Y., Wang, W.-C., Tsai, H.-P. & Horng, J.-T., Apr 2024, In: *Antimicrobial Agents and Chemotherapy*. 68, 4, 26 p., e00956-23.

**Outline and Background for the EU-OS Solubility Prediction Challenge**

Wang, W., Tang, J. & Zaliani, A., 20 Mar 2024, In: *SLAS discovery*. 29, 4, 5 p., 100155.

**The regulatory relationship between NAMPT and PD-L1 in cancer and identification of a dual-targeting inhibitor**

Yang, Y., Li, Z., Wang, Y., Gao, J., Meng, Y., Wang, S., Zhao, X., Tang, C., Yang, W., Li, Y., Bao, J., Fan, X., Tang, J., Yang, J., Wu, C., Qin, M. & Wang, L., 4 Mar 2024, In: *EMBO molecular medicine*. 16, 4, p. 885-903 19 p.

**A community challenge to predict clinical outcomes after immune checkpoint blockade in non-small cell lung cancer**

Mason, M., Lapuente-Santana, Ó., Halkola, A. S., Wang, W., Mall, R., Xiao, X., Kaufman, J., Fu, J., Pfeil, J., Banerjee, J., Chung, V., Chang, H., Chasalow, S. D., Lin, H. Y., Chai, R., Yu, T., Finotello, F., Mirtti, T., Mäyränpää, M. I. & Bao, J. & 25 others, Verschuren, E. W., Ahmed, E. I., Ceccarelli, M., Miller, L. D., Monaco, G., Hendrickx, W. R. L., Sherif, S., Yang, L., Tang, M., Gu, S. S., Zhang, W., Zhang, Y., Zeng, Z., Das Sahu, A., Liu, Y., Yang, W., Bedognetti, D., Tang, J., Eduati, F., Laajala, T. D., Geese, W. J., Guinney, J., Szustakowski, J. D., Vincent, B. G. & Carbone, D. P., 21 Feb 2024, In: *Journal of Translational Medicine*. 22, 1, 16 p., 190.

**Tracing back primed resistance in cancer via sister cells**

Dai, J., Zheng, S., Falco, M. M., Bao, J., Eriksson, J., Pikkusaari, S., Forstén, S., Jiang, J., Wang, W., Gao, L., Perez-Villatoro, F., Dufva, O., Saeed, K., Wang, Y., Amiryousefi, A., Färkkilä, A., Mustjoki, S., Kauppi, L., Tang, J. & Vähärautio, A., 7 Feb 2024, In: *Nature Communications*. 15, 1, 14 p., 1158.

**TransScore: a graph model for pose scoring and affinity prediction based on transformer convolution network**

Lei, C., Wang, W., Fan, W., Lu, Z., Tang, J. & Li, M., 2024, In: *IEEE Journal of Biomedical and Health Informatics*. p. 1-9 9 p.

**The Interplay Between HIF-1 $\alpha$  and EZH2 in Lung Cancer and Dual-Targeted Drug Therapy**

Wang, J., Yang, C., Xu, H., Fan, X., Jia, L., Du, Y., Liu, S., Wang, W., Zhang, J., Zhang, Y., Wang, X., Liu, Z., Bao, J., Li, S., Yang, J., Wu, C., Tang, J., Chen, G. & Wang, L., 9 Dec 2023, In: *Advanced Science*. 16 p., 2303904.

**"Be sustainable": EOSC-Life recommendations for implementation of FAIR principles in life science data handling**

David, R., Rybina, A., Burel, J.-M., Hériché, J.-K., Audergon, P., Boiten, J.-W., Coppens, F., Crockett, S., Exter, K., Fahrner, S., Fratelli, M., Goble, C., Gormanns, P., Grantner, T., Grüning, B., Gurwitz, K. T., Hancock, J. M., Harmse, H., Holub, P. & Juty, N. & 39 others, Karnbach, G., Karoune, E., Keppler, A., Klemeier, J., Lancelotti, C., Legras, J.-L., Lister, A. L., Longo, D. L., Ludwig, R., Madon, B., Massimi, M., Matser, V., Matteoni, R., Mayrhofer, M. T., Ohmann, C., Panagiotopoulou, M., Parkinson, H., Perseil, I., Pfander, C., Pieruschka, R., Raess, M., Rauber, A., Richard, A. S., Romano, P., Rosato, A., Sánchez-Pla, A., Sansone, S.-A., Sarkans, U., Serrano-Solano, B., Tang, J., Tanoli, Z., Tedds, J., Wagener, H., Weise, M., Westerhoff, H. V., Wittner, R., Ewbank, J., Blomberg, N. & Gribbon, P., 15 Nov 2023, In: *EMBO Journal*. 23 p., e115008.

**Resolving network clusters disparity based on dissimilarity measurements with nonmetric analysis of variance**

Malyutina, A., Tang, J. & Amiryousefi, A., 15 Nov 2023, In: *iScience*. 26, 11, 108354.

**A pharmacophore-guided deep learning approach for bioactive molecular generation**

Zhu, H., Zhou, R., Cao, D., Tang, J. & Li, M., 6 Oct 2023, In: *Nature Communications*. 14, 1, 11 p., 6234.

**The Impact of Computational Drug Discovery on Society**

Wang, J., Li, M., Wang, E., Tang, J. & Hu, B., 1 Oct 2023, In: *IEEE transactions on computational social systems*. 10, 5, p. 2148-2159 12 p.

**Synergistic interactions of cytarabine-adavosertib in leukemic cell lines proliferation and metabolomic endpoints**  
Rodríguez-Vázquez, G. O., Díaz-Quiñones, A. O., Chorna, N., Salgado-Villanueva, I. K., Tang, J., Ortiz, W. I. S. & Maldonado, H. M., Oct 2023, In: *Biomedicine & Pharmacotherapy*. 166, 14 p., 115352.

**The impact of imputation quality on machine learning classifiers for datasets with missing values**  
AIX-COVNET Collaboration, Shadbahr, T., Roberts, M., Stanczuk, J., Gilbey, J., Teare, P., Dittmer, S., Thorpe, M., Torné, R. V., Sala, E., Lió, P., Patel, M., Preller, J., Selby, I., Breger, A., Weir-McCall, J. R., Gkrania-Klotsas, E., Korhonen, A., Jefferson, E. & Langa, G. & 13 others, Yang, G., Prosch, H., Babar, J., Escudero Sánchez, L., Wassin, M., Holzer, M., Walton, N., Rudd, J. H. F., Mirtti, T., Rannikko, A. S., Aston, J. A. D., Tang, J. & Schönlieb, C.-B., Oct 2023, In: *Communications Medicine*. 3, 1, 15 p., 139.

**Historic and transcriptomic features of MRI-visible and invisible clinically significant prostate cancers are associated with prognosis**  
Lehto, T.-P. K., Pylväläinen, J., Sandeman, K., Kenttämies, A., Nordling, S., Mills, I. G., Tang, J., Mirtti, T. & Rannikko, A., 28 Sept 2023, In: *International Journal of Cancer*. 14 p.

**A pipeline to further enhance quality, integrity and reusability of the NCCID clinical data**  
Breger, A., Selby, I., Roberts, M., Babar, J., Gkrania-Klotsas, E., Preller, J., Escudero Sánchez, L., Dittmer, S., Thorpe, M., Gilbey, J., Jefferson, E., Langa, G., Yang, G., Xing, X., Nan, Y., Li, M., Prosch, H., Stanczuk, J., Tang, J. & Teare, P. & 14 others, Patel, M., Wassink, M., Holzer, M., Solares, E. G., Walton, N., Lió, P., Shadbahr, T., Rudd, J. H. F., Aston, J. A. D., Weir-McCall, J. R., Sala, E., Schönlieb, C.-B., Korhonen, A. & Collaboration, A.-C., 27 Jul 2023, In: *Scientific data*. 10, 1, 16 p., 493.

**Editorial: Functional screening for cancer drug discovery: from experimental approaches to data integration**  
Zhou, K., Wang, W. & Tang, J., 6 Jul 2023, In: *Frontiers in Genetics*. 14, 3 p., 1201454.

**Navigating the development challenges in creating complex data systems**  
Dittmer, S., Roberts, M., Gilbey, J., Biguri, A., Selby, I., Breger, A., Thorpe, M., Weir-McCall, J. R., Gkrania-Klotsas, E., Korhonen, A., Jefferson, E., Langa, G., Yang, G., Prosch, H., Stanczuk, J., Tang, J., Babar, J., Escudero Sánchez, L., Teare, P. & Patel, M. & 10 others, Wassin, M., Holzer, M., Walton, N., Lió, P., Shadbahr, T., Sala, E., Preller, J., Rudd, J. H. F., Aston, J. A. D. & Schönlieb, C.-B., Jul 2023, In: *Nature Machine Intelligence*. 5, 7, p. 681-686 6 p.

**GraphscoreDTA: optimized graph neural network for protein–ligand binding affinity prediction**  
Wang, K., Zhou, R., Tang, J. & Li, M., 1 Jun 2023, In: *Bioinformatics*. 39, 6, 9 p., btad340.

**Harmonizing across datasets to improve the transferability of drug combination prediction**  
Zhang, H., Wang, Z., Nan, Y., Zagidullin, B., Yi, D., Tang, J. & Guan, Y., 11 Apr 2023, In: *Communications Biology*. 6, 1, 10 p., 397.

**drda: An R Package for Dose-Response Data Analysis Using Logistic Functions**  
Maljutina, A., Tang, J. & Pessia, A., Mar 2023, In: *Journal of Statistical Software*. 106, 4, p. 1-26 26 p.

**[C-11]carfentanil PET imaging for studying the peripheral opioid system in vivo: effect of photoperiod on mu-opioid receptor availability in brown adipose tissue**  
Sun, L., Aarnio, R., Herre, E. A., Kärrnä, S., Palani, S., Virtanen, H., Liljenbäck, H., Virta, J., Honkaniemi, A., Oikonen, V., Han, C., Laurila, S., Bucci, M., Helin, S., Yatkin, E., Nummenmaa, L., Nuutila, P., Tang, J. & Roivainen, A., Jan 2023, In: *European Journal of Nuclear Medicine and Molecular Imaging*. 50, 2, p. 266–274 9 p.

**Drug repositioning with adaptive graph convolutional networks**  
Sun, X., Jia, X., Lu, Z., Tang, J. & Li, M., 2023, In: *Bioinformatics*. 9 p., btad748.

**Endothelial TIE1 Restricts Angiogenic Sprouting to Coordinate Vein Assembly in Synergy With Its Homologue TIE2**  
Cao, X., Li, T., Xu, B., Ding, K., Li, W., Shen, B., Chu, M., Zhu, D., Rui, L., Shang, Z., Li, X., Wang, Y., Zheng, S., Alitalo, K., Liu, G., Tang, J., Kubota, Y. & He, Y., 2023, In: *Arteriosclerosis, Thrombosis, and Vascular Biology*. 43, 8, p. e323–e338 16 p.

### **Special Issue on Network Pharmacology Modeling for Drug Discovery**

Tang, J., 2023, In: *Processes*. 11, 7, 4 p., 1988.

### **SynergyFinder Plus: Toward Better Interpretation and Annotation of Drug Combination Screening Datasets**

Zheng, S., Wang, W., Aldahdooh, J., Malyutina, A., Shadbahr, T., Tanoli, Z., Pessia, A. & Tang, J., 20 Dec 2022, In: *Genomics, Proteomics & Bioinformatics*. 20, 3, p. 587-596 10 p.

### **DrugRepo: a novel approach to repurposing drugs based on chemical and genomic features**

Wang, Y., Aldahdooh, J., Hu, Y., Yang, H., Vähä-Koskela, M., Tang, J. & Tanoli, Z., Dec 2022, In: *Scientific Reports*. 12, 1, 13 p., 21116.

### **Interpretable prognostic modeling of endometrial cancer**

Zagidullin, B., Pasanen, A., Loukovaara, M., Bützow, R. & Tang, J., Dec 2022, In: *Scientific Reports*. 12, 1, 11 p., 21543.

### **Using BERT to identify drug-target interactions from whole PubMed**

Aldahdooh, J., Vähä-Koskela, M., Tang, J. & Tanoli, Z., 21 Jun 2022, In: *BMC Bioinformatics*. 23, 1, 13 p., 245.

### **The ENDS of assumptions; an online tool for the Epistemic Nonparametric Drug-response Scoring**

Amiryousefi, A., Williams, B., Jafari, M. & Tang, J., Jun 2022, In: *Bioinformatics*. 38, 11, p. 3132-3133 2 p.

### **Bipartite network models to design combination therapies in acute myeloid leukaemia**

Jafari, M., Mirzaie, M., Bao, J., Barneh, F., Zheng, S., Eriksson, J., Heckman, C. A. & Tang, J., 19 Apr 2022, In: *Nature Communications*. 13, 1, 12 p., 2128.

### **Antitumoral Effect of Plocabulin in High Grade Serous Ovarian Carcinoma Cell Line Models**

Heredia-Soto, V., Escudero, J., Miguel, M., Ruiz, P., Gallego, A., Berjón, A., Hernández, A., Martínez-Díez, M., Zheng, S., Tang, J., Hardisson, D., Feliu, J., Redondo, A. & Mendiola, M., 17 Mar 2022, In: *Frontiers in oncology*. 12, 10 p., 862321.

### **Bayes in Wonderland! Predictive Supervised Classification Inference Hits Unpredictability**

Amiryousefi, A., Kinnula, V. & Tang, J., Mar 2022, In: *Mathematics*. 10, 5, 11 p., 828.

### **Prognosis Stratification Tools in Early-Stage Endometrial Cancer: Could We Improve Their Accuracy?**

Ramon-Patino, J. L., Ruz-Caracuel, I., Heredia-Soto, V., Garcia de la Calle, L. E., Zagidullin, B., Wang, Y., Berjon, A., Lopez-Janeiro, A., Miguel, M., Escudero, J., Gallego, A., Castelo, B., Yebenes, L., Hernandez, A., Feliu, J., Pelaez-García, A., Tang, J., Hardisson, D., Mendiola, M. & Redondo, A., Feb 2022, In: *Cancers*. 14, 4, 14 p., 912.

### **A community challenge for a pancancer drug mechanism of action inference from perturbational profile data**

Douglass Jr., E. F., Allaway, R. J., Szalai, B., Wang, W., Tian, T., Fernández-Torras, A., Realubit, R., Karan, C., Zheng, S., Pessia, A., Tanoli, Z., Jafari, M., Wan, F., Li, S., Xiong, Y., Duran-Frigola, M., Bertoni, M., Badia-i-Mompel, P., Mateo, L. & Guitart-Pla, O. & 8 others, Chung, V., Tang, J., Zeng, J., Aloy, P., Saez-Rodriguez, J., Guinney, J., Gerhard, D. S. & Califano, A., 18 Jan 2022, In: *Cell Reports Medicine*. 3, 1, 20 p., 100492.

### **Minimal information for chemosensitivity assays (MICHA): a next-generation pipeline to enable the FAIRification of drug screening experiments**

Tanoli, Z., Aldahdooh, J., Alam, F., Wang, Y., Seemab, U., Fratelli, M., Pavlis, P., Hajduch, M., Bietrix, F., Gribbon, P., Zaliani, A., Hall, M. D., Shen, M., Brimacombe, K., Kuleskiy, E., Saarela, J., Wennerberg, K., Vähä-Koskela, M. & Tang, J., Jan 2022, In: *Briefings in Bioinformatics*. 23, 1, 7 p., 350.

### **Application of microfluidic chips in anticancer drug screening**

Fan, X.-Y., Deng, Z.-F., Yan, Y.-Y., E. Orel, V., Shypko, A., B. Orel, V., Ivanova, D., Pilarsky, C., Tang, J., Chen, Z.-S. & Zhang, J.-Y., 2022, In: *Bosnian Journal of Basic Medical Sciences*. 22, 3, p. 302-314 13 p.

**Eribulin activity in soft tissue sarcoma monolayer and three-dimensional cell line models: could the combination with other drugs improve its antitumoral effect?**

Escudero, J., Heredia-Soto, V., Wang, Y., Ruiz, P., Hu, Y., Gallego, A., Pozo-Kreiling, J. J., Martinez-Marin, V., Berjon, A., Ortiz-Cruz, E., Bernabeu, D., Feliu, J., Tang, J., Redondo, A. & Mendiola, M., 4 Dec 2021, In: *Cancer Cell International*. 21, 1, 11 p., 646.

**Vascular adhesion protein-1 defines a unique subpopulation of human hematopoietic stem cells and regulates their proliferation**

Iftakhar-e-Khuda, I., Pessia, A., Zheng, S., Kankainen, M., Kontro, M., Karikoski, M., Laurila, J., Gerke, H., Tadayon, S., Hollmén, M., Tang, J., Imhof, B. A., Salmi, M. & Jalkanen, S., Dec 2021, In: *Cellular and Molecular Life Sciences*. 78, 23, p. 7851–7872 22 p.

**Drug repurposing for COVID-19 using graph neural network and harmonizing multiple evidence**

Hsieh, K., Wang, Y., Chen, L., Zhao, Z., Savitz, S., Jiang, X., Tang, J. & Kim, Y., 30 Nov 2021, In: *Scientific Reports*. 11, 1, 13 p., 23179.

**Network-guided identification of cancer-selective combinatorial therapies in ovarian cancer**

He, L., Bulanova, D., Oikkonen, J., Häkkinen, A., Zhang, K., Zheng, S., Wang, W., Erkan, E. P., Carpén, O., Joutsiniemi, T., Hietanen, S., Hynninen, J., Huhtinen, K., Hautaniemi, S., Vähärautio, A., Tang, J., Wennerberg, K. & Aittokallio, T., 3 Nov 2021, In: *Briefings in Bioinformatics*. 22, 6, 12 p., 272.

**R-BERT-CNN: Drug-target interactions extraction from biomedical literature**

Aldahdooh, J., Tanoli, Z. & Tang, J., 2 Nov 2021, *Proceedings of the BioCreative VII Challenge Evaluation Workshop*. p. 102-106 5 p.

**Comparative analysis of molecular fingerprints in prediction of drug combination effects**

Zagidullin, B., Wang, Z., Guan, Y., Pitkänen, E. & Tang, J., Nov 2021, In: *Briefings in Bioinformatics*. 22, 6, 15 p., 291.

**Heterogeneous modulation of Bcl-2 family members and drug efflux mediate MCL-1 inhibitor resistance in multiple myeloma**

Bolomsky, A., Miettinen, J. J., Malyutina, A., Besse, A., Huber, J., Fellingner, S., Breid, H., Parsons, A., Klavins, K., Hannich, J. T., Kubicek, S., Caers, J., Hübl, W., Schreder, M., Zojer, N., Driessen, C., Tang, J., Besse, L., Heckman, C. & Ludwig, H., 26 Oct 2021, In: *Blood advances*. 5, 20, p. 4125-4139 15 p.

**Combination Therapy with Fluoxetine and the Nucleoside Analog GS-441524 Exerts Synergistic Antiviral Effects against Different SARS-CoV-2 Variants In Vitro**

Brunotte, L., Zheng, S., Mecate-Zambrano, A., Tang, J., Ludwig, S., Rescher, U. & Schloer, S., 3 Sept 2021, In: *Pharmaceutics*. 13, 9, 13 p., 1400.

**Network-based modeling of herb combinations in traditional Chinese medicine**

Wang, Y., Yang, H., Chen, L., Jafari, M. & Tang, J., Sept 2021, In: *Briefings in Bioinformatics*. 22, 5, p. 1-13 13 p., 106.

**S100 Calcium Binding Protein Family Members Associate With Poor Patient Outcome and Response to Proteasome Inhibition in Multiple Myeloma**

Liu, M., Wang, Y., Miettinen, J. J., Kumari, R., Majumder, M. M., Tierney, C., Bazou, D., Parsons, A., Suvela, M., Lievonen, J., Silvennoinen, R., Anttila, P., Dowling, P., O'Gorman, P., Tang, J. & Heckman, C. A., 16 Aug 2021, In: *Frontiers in Cell and Developmental Biology*. 9, 14 p., 723016.

**DrugComb update: a more comprehensive drug sensitivity data repository and analysis portal**

Zheng, S., Aldahdooh, J., Shadbahr, T., Wang, Y., Aldahdooh, D., Bao, J., Wang, W. & Tang, J., 2 Jul 2021, In: *Nucleic Acids Research*. 49, W1, p. W174-W184 11 p.

**RNA atlas of human bacterial pathogens uncovers stress dynamics linked to infection**

Avican, K., Aldahdooh, J., Togninalli, M., Mahmud, A. K. M. F., Tang, J., Borgwardt, K. M., Rhen, M. & Fällman, M., 2 Jun 2021, In: *Nature Communications*. 12, 1, 14 p., 3282.

**A three-term recurrence relation for accurate evaluation of transition probabilities of the simple birth-and-death process**  
Pessia, A. & Tang, J., Jun 2021, In: BIT Numerical Mathematics. 61, 2, p. 561–585 25 p.

**Drug synergy of combinatory treatment with remdesivir and the repurposed drugs fluoxetine and itraconazole effectively impairs SARS-CoV-2 infection in vitro**

Schloer, S., Brunotte, L., Mecate-Zambrano, A., Zheng, S., Tang, J., Ludwig, S. & Rescher, U., Jun 2021, In: British Journal of Pharmacology. 178, 11, p. 2339-2350 12 p.

**Identification of Celecoxib targeted proteins using label-free thermal proteome profiling on rat hippocampus**

Gholizadeh, E., Karbalaee, R., Khaleghian, A., Salimi, M., Gilany, K., Soliymani, R., Tanoli, Z., Rezadoost, H., Baumann, M., Jafari, M. & Tang, J., 1 May 2021, In: Molecular pharmacology : an international journal. 99, 5, p. 308-318 11 p.

**Common pitfalls and recommendations for using machine learning to detect and prognosticate for COVID-19 using chest radiographs and CT scans**

AIX-COVNET, Roberts, M., Gozaliasl, G., Tang, J. & Shadbahr, T., Mar 2021, In: Nature Machine Intelligence. 3, 3, p. 199-217 19 p.

**Seasonal variation in the brain mu-opioid receptor availability**

Sun, L., Tang, J., Liljenbäck, H., Honkaniemi, A., Virta, J., Isojärvi, J., Karjalainen, T., Kantonen, T., Nuutila, P., Hietala, J., Kaasinen, V., Kalliokoski, K., Hirvonen, J., Scheinin, H., Helin, S., Eerola, K., Savontaus, E., Yatkin, E., Rinne, J. O. & Roivainen, A. & 1 others, Nummenmaa, L., 10 Feb 2021, In: Journal of Neuroscience. 41, 6, p. 1265-1273 9 p.

**Anticancer drug synergy prediction in understudied tissues using transfer learning**

Kim, Y., Zheng, S., Tang, J., Jim Zheng, W., Li, Z. & Jiang, X., 15 Jan 2021, In: Journal of the American Medical Informatics Association. 28, 1, p. 42-51 10 p.

**CD73 contributes to anti-inflammatory properties of afferent lymphatic endothelial cells in humans and mice**

Eichin, D., Pessia, A., Takeda, A., Laakkonen, J., Bellmann, L., Kankainen, M., Imhof, B. A., Stoitzner, P., Tang, J., Salmi, M. & Jalkanen, S., 12 Jan 2021, In: European Journal of Immunology. 51, 1, p. 231–246 16 p.

**Chloroplot: An Online Program for the Versatile Plotting of Organelle Genomes**

Zheng, S., Poczar, P., Hyvönen, J., Tang, J. & Amiroussafi, A., 25 Sept 2020, In: Frontiers in Genetics. 11, 8 p., 576124.

**Unsupervised Learning and Multipartite Network Models: A Promising Approach for Understanding Traditional Medicine**

Jafari, M., Wang, Y., Amiroussafi, A. & Tang, J., 26 Aug 2020, In: Frontiers in Pharmacology. 11, 10 p., 1319.

**Can We Assume the Gene Expression Profile as a Proxy for Signaling Network Activity?**

Piran, M., Karbalaee, R., Piran, M., Aldahdooh, J., Mirzaie, M., Ansari-Pour, N., Tang, J. & Jafari, M., Jun 2020, In: Biomolecules. 10, 6, 15 p., 850.

**Multi-parametric single cell evaluation defines distinct drug responses in healthy hematologic cells that are retained in corresponding malignant cell types**

Majumder, M. M., Leppä, A.-M., Hellesøy, M., Dowling, P., Malyutina, A., Kopperud, R., Bazou, D., Andersson, E., Parsons, A., Tang, J., Kallioniemi, O., Mustjoki, S., O’Gorman, P., Wennerberg, K., Porkka, K., Gjertsen, B. T. & Heckman, C. A., Jun 2020, In: Haematologica. 105, 6, p. 1527-1538 12 p.

**Exploration of databases and methods supporting drug repurposing: a comprehensive survey**

Rehman, Z. U., Seemab, U., Scherer, A., Wennerberg, K., Tang, J. & Vähä-Koskela, M., 14 Feb 2020, In: Briefings in Bioinformatics. 22, 2, p. 1656-1678 23 p.

**Combined gene essentiality scoring improves the prediction of cancer dependency maps**

Wang, W., Malyutina, A., Pessia, A., Saarela, J., Heckman, C. A. & Tang, J., Dec 2019, In: EBioMedicine. 50, p. 67-80 14 p.

**Predicting Meridian in Chinese traditional medicine using machine learning approaches**

Wang, Y., Jafari, M., Tang, Y. & Tang, J., 25 Nov 2019, In: PLoS Computational Biology. 15, 11, 21 p., 1007249.

**Network pharmacology modeling identifies synergistic Aurora B and ZAK interaction in triple-negative breast cancer**

Tang, J., Gautam, P., Gupta, A., He, L., Timonen, S., Akimov, Y., Wang, W., Szwajda, A., Jaiswal, A., Turei, D., Yadav, B., Kankainen, M., Saarela, J., Saez-Rodriguez, J., Wennerberg, K. & Aittokallio, T., 8 Jul 2019, In: npj Systems Biology and Applications. 5, 1, 11 p., 20.

**DrugComb: an integrative cancer drug combination data portal**

Zagidullin, B., Aldahdooh, J., Zheng, S., Wang, W., Wang, Y., Saad, J., Malyutina, A., Jafari, M., Tanoli, Z., Pessia, A. & Tang, J., 2 Jul 2019, In: Nucleic Acids Research. 47, W1, p. W43-W51 9 p.

**Community assessment to advance computational prediction of cancer drug combinations in a pharmacogenomic screen**

Menden, M. P., Wang, D., Mason, M. J., Szalai, B., Bulusu, K. C., Guan, Y., Yu, T., Kang, J., Jeon, M., Wolfinger, R., Nguyen, T., Zaslavskiy, M., Abante, J., Abecassis, B. S., Aben, N., Aghamirzaie, D., Aittokallio, T., Akhtari, F. S., Al-lazikani, B. & Alam, T. & 280 others, Allam, A., Allen, C., de Almeida, M. P., Altarawy, D., Alves, V., Amadoz, A., Anchang, B., Antolin, A. A., Ash, J. R., Aznar, V. R., Ba-alawi, W., Bagheri, M., Bajic, V., Ball, G., Ballester, P. J., Baptista, D., Bare, C., Bateson, M., Bender, A., Bertrand, D., Wijayawardena, B., Boroevich, K. A., Bosdriesz, E., Bougouffa, S., Bounova, G., Brouwer, T., Bryant, B., Calaza, M., Calderone, A., Calza, S., Capuzzi, S., Carbonell-Caballero, J., Carlin, D., Carter, H., Castagnoli, L., Celebi, R., Cesareni, G., Chang, H., Chen, G., Chen, H., Chen, H., Cheng, L., Chernomoretz, A., Chicco, D., Cho, K.-H., Cho, S., Choi, D., Choi, J., Choi, K., Choi, M., Cock, M. D., Coker, E., Cortes-Ciriano, I., Cserző, M., Cubuk, C., Curtis, C., Daele, D. V., Dang, C. C., Dijkstra, T., Dopazo, J., Draghici, S., Drosou, A., Dumontier, M., Ehrhart, F., Eid, F.-E., ElHefnawi, M., Elmarakeby, H., van Engelen, B., Engin, H. B., de Esch, I., Evelo, C., Falcao, A. O., Farag, S., Fernandez-Lozano, C., Fisch, K., Flobak, A., Fornari, C., Foroushani, A. B. K., Fotso, D. C., Fourches, D., Friend, S., Frigessi, A., Gao, F., Gao, X., Gerold, J. M., Gestraud, P., Ghosh, S., Gillberg, J., Godoy-Lorite, A., Godynuk, L., Godzik, A., Goldenberg, A., Gomez-Cabrero, D., Gonen, M., de Graaf, C., Gray, H., Grechkin, M., Guimera, R., Guney, E., Haibe-Kains, B., Han, Y., Hase, T., He, D., He, L., Heath, L. S., Hellton, K. H., Helmer-Citterich, M., Hidalgo, M. R., Hidru, D., Hill, S. M., Hochreiter, S., Hong, S., Hovig, E., Hsueh, Y.-C., Hu, Z., Huang, J. K., Huang, R. S., Hunyady, L., Hwang, J., Hwang, T. H., Hwang, W., Hwang, Y., Isayev, O., Don't Walk, O. B., Jack, J., Jahandideh, S., Ji, J., Jo, Y., Kamola, P. J., Kanev, G. K., Karacosta, L., Karimi, M., Kaski, S., Kazanov, M., Khamis, A. M., Khan, S. A., Kiani, N. A., Kim, A., Kim, J., Kim, J., Kim, K., Kim, K., Kim, S., Kim, Y., Kim, Y., Kirk, P. D. W., Kitano, H., Klambauer, G., Knowles, D., Ko, M., Kohn-Luque, A., Kooistra, A. J., Kuenemann, M. A., Kuiper, M., Kurz, C., Kwon, M., van Laarhoven, T., Laegreid, A., Lederer, S., Lee, H., Lee, J., Lee, Y. W., Lepp\_aho, E., Lewis, R., Li, J., Li, L., Liley, J., Lim, W. K., Lin, C., Liu, Y., Lopez, Y., Low, J., Lysenko, A., Machado, D., Madhukar, N., Maeyer, D. D., Malpartida, A. B., Mamitsuka, H., Marabita, F., Marchal, K., Martinen, P., Mason, D., Mazaheri, A., Mehmood, A., Mehreen, A., Michaut, M., Miller, R. A., Mitsopoulos, C., Modos, D., Moerbeke, M. V., Moo, K., Motsinger-Reif, A., Movva, R., Muraru, S., Muratov, E., Mushthofa, M., Nagarajan, N., Nakken, S., Nath, A., Neuvial, P., Newton, R., Ning, Z., Niz, C. D., Oliva, B., Olsen, C., Palmeri, A., Panesar, B., Papadopoulos, S., Park, J., Park, S., Park, S., Pawitan, Y., Peluso, D., Pendyala, S., Peng, J., Perfetto, L., Pirro, S., Plevritis, S., Politi, R., Poon, H., Porta, E., Prellner, I., Preuer, K., Pujana, M. A., Ramnarine, R., Reid, J. E., Reyat, F., Richardson, S., Ricketts, C., Rieswijk, L., Rocha, M., Rodriguez-Gonzalvez, C., Roell, K., Rotroff, D., de Ruyter, J. R., Rukawa, P., Sadacca, B., Safikhani, Z., Safitri, F., Sales-Pardo, M., Sauer, S., Schlichting, M., Seoane, J. A., Serra, J., Shang, M.-M., Sharma, A., Sharma, H., Shen, Y., Shiga, M., Shin, M., Shkedy, Z., Shopsowitz, K., Sinai, S., Skola, D., Smirnov, P., Soerensen, I. F., Soerensen, P., Song, J.-H., Song, S. O., Soufan, O., Spitzmueller, A., Steipe, B., Suphavitai, C., Tamayo, S. P., Tamborero, D., Tang, J., Tanoli, Z.-U.-R., Tarres-Deulofeu, M., Tegner, J., Thommesen, L., Tonekaboni, S. A. M., Tran, H., Troyer, E. D., Truong, A., Tsunoda, T., Turu, G., Tzeng, G.-Y., Verbeke, L., Videla, S. & Consortium, A.-S. D. C. D., 17 Jun 2019, In: Nature Communications. 10, 1, 17 p., 2674.

**Drug combination sensitivity scoring facilitates the discovery of synergistic and efficacious drug combinations in cancer**

Malyutina, A., Majumder, M. M., Wang, W., Pessia, A., Heckman, C. A. & Tang, J., 20 May 2019, In: PLoS Computational Biology. 15, 5, 19 p., 1006752.

**Loss-of-function mutations with circadian rhythm regulator Per1/Per2 lead to premature ovarian insufficiency**

Zheng, Y., Liu, C., Li, Y., Jiang, H., Yang, P., Tang, J., Xu, Y., Wang, H. & He, Y., Apr 2019, In: Biology of Reproduction. 100, 4, p. 1066-1072 7 p.

**Making Sense of the Epigenome Using Data Integration Approaches**

Cazaly, E., Saad, J., Wang, W., Heckman, C., Ollikainen, M. & Tang, J., 19 Feb 2019, In: Frontiers in Pharmacology. 10, 15 p., 126.

**Eltrombopag Promotes Megakaryocyte Survival and Signaling in the Presence of Specific Cytotoxic Agents**

Javarappa, K. K., Tsallios, D., Zagidullin, B., Saad, J., Tang, J., Ramos, P. M., Pallaud, C. & Heckman, C. A., 3 Dec 2018.

**Drug Target Commons 2.0: a community platform for systematic analysis of drug target interaction profiles**

Tanoli, Z., Alam, Z., Vähä-Koskela, M., Ravikumar, B., Malyutina, A., Jaiswal, A., Tang, J., Wennerberg, K. & Aittokallio, T., 13 Sept 2018, In: Database-The journal of biological databases and curation. 13 p., 083.

**Patient-Customized Drug Combination Prediction and Testing for T-cell Prolymphocytic Leukemia Patients**

He, L., Tang, J., Andersson, E. I., Timonen, S., Koschmieder, S., Wennerberg, K., Mustjoki, S. & Aittokallio, T., 1 May 2018, In: Cancer Research. 78, 9, p. 2407-2418 12 p.

**Discovery of novel drug sensitivities in T-PLL by high-throughput ex vivo drug testing and mutation profiling**

Andersson, E. I., Pützer, S., Yadav, B., Dufva, O., Khan, S., He, L., Sellner, L., Schrader, A., Crispatsu, G., Oleś, M., Zhang, H., Adnan-Awad, S., Lagström, S., Bellanger, D., Mpindi, J. P., Eldfors, S., Pemovska, T., Pietarinen, P., Lauhio, A. & Tomska, K. & 19 others, Cuesta-Mateos, C., Faber, E., Koschmieder, S., Brümmendorf, T. H., Kytölä, S., Savolainen, E.-R., Siitonen, T., Ellonen, P., Kallioniemi, O., Wennerberg, K., Ding, W., Stern, M.-H., Huber, W., Anders, S., Tang, J., Aittokallio, T., Zenz, T., Herling, M. & Mustjoki, S., Mar 2018, In: Leukemia. 32, 3, p. 774-787 14 p.

**Drug Target Commons: A Community Effort to Build a Consensus Knowledge Base for Drug-Target Interactions**

Tang, J., Tanoli, Z.-U.-R., Ravikumar, B., Alam, Z., Rebane, A., Vähä-Koskela, M., Peddinti, G., van Adrichem, A. J., Wakkinen, J., Jaiswal, A., Karjalainen, E., Gautam, P., He, L., Parri, E., Khan, S., Gupta, A., Ali, M., Yetukuri, L., Gustavsson, A.-L. & Seashore-Ludlow, B. & 6 others, Hersey, A., Leach, A. R., Overington, J. P., Repasky, G., Wennerberg, K. & Aittokallio, T., 15 Feb 2018, In: Cell chemical biology. 25, 2, p. 224-+ 8 p.

**Eltrombopag Promotes Megakaryocyte Survival and Signaling in the Presence of Specific Cytotoxic Agents**

Javarappa, K. K., Tsallios, D., Zagidullin, B., Saad, J., Tang, J., Ramos, P. M., Pallaud, C. & Heckman, C. A., 2018, In: Blood. 132

**Methods for High-throughput Drug Combination Screening and Synergy Scoring**

He, L., Kuleskiy, E., Saarela, J. S., Turunen, L. L., Wennerberg, J. K., Aittokallio, T. A. & Tang, J., 2018, *Cancer Systems Biology*. von Stechow, L. (ed.). New York: Humana press, p. 351-398 48 p. (Methods in molecular biology; no. 1711).

**Multi-Parametric Single Cell Profiling Defines Distinct Drug Responses in Healthy Hematological Cell Lineages That Are Retained in Corresponding Malignant Cell Types**

Majumder, M., Leppä, A.-M., Hellesøy, M., Dowling, P., Malyutina, A., Bazou, D., Andersson, E. I., Parsons, A., Tang, J., Kallioniemi, O.-P., Mustjoki, S. M., O'Gorman, P., Wennerberg, J. K., Porkka, K. V. K., Gjertsen, B.-T. & Heckman, C. A., 2018, In: Blood. 132

**A Community Challenge for Inferring Genetic Predictors of Gene Essentialities through Analysis of a Functional Screen of Cancer Cell Lines**

Gönen, M., Weir, B. A., Cowley, G. S., Vazquez, F., Guan, Y., Jaiswal, A., Karasuyama, M., Uzunangelov, V., Wang, T., Tsherniak, A., Howell, S., Marbach, D., Hoff, B., Norman, T. C., Airola, A., Bivol, A., Bunte, K., Carlin, D., Chopra, S. & Deran, A. & 26 others, Ellrott, K., Gopalacharyulu, P., Graim, K., Kaski, S., Khan, S. A., Newton, Y., Ng, S., Pahikkala, T., Paull, E., Sokolov, A., Tang, H., Tang, J., Wennerberg, K., Xie, Y., Zhan, X., Zhu, F., Aittokallio, T., Mamitsuka, H., Stuart, J. M., Boehm, J. S., Root, D. E., Xiao, G., Stolovitzky, G., Hahn, W. C., Margolin, A. A. & Broad-DREAM Community, 22 Nov 2017, In: Cell Systems. 5, 5, p. 485-+ 16 p.

**The inconvenience of data of convenience: computational research beyond post-mortem analyses**

Azencott, C.-A., Aittokallio, T., Roy, S., Norman, T., Friend, S., Stolovitzky, G., Goldenberg, A., DREAM Idea Challenge Consortium & Tang, J., Oct 2017, In: Nature methods. 14, 10, p. 937-938 2 p.

**JAK1/2 and BCL2 inhibitors synergize to counteract bone marrow stromal cell-induced protection of AML**

Karjalainen, R., Pemovska, T., Popa, M., Liu, M., Javarappa, K. K., Majumder, M. M., Yadav, B., Tamborero, D., Tang, J., Bychkov, D., Kontro, M., Parsons, A., Suvela, M., Safont, M. M., Porkka, K., Aittokallio, T., Kallioniemi, O., McCormack, E., Gjertsen, B. T. & Wennerberg, K. & 2 others, Knowles, J. & Heckman, C. A., 10 Aug 2017, In: Blood. 130, 6, p. 789-802 14 p.



**SynergyFinder: a web application for analyzing drug combination dose-response matrix data**

Ianevski, A., He, L., Aittokallio, T. & Tang, J., 1 Aug 2017, In: *Bioinformatics*. 33, 15, p. 2413-2415 3 p.

**Seed-effect modeling improves the consistency of genome-wide loss-of-function screens and identifies synthetic lethal vulnerabilities in cancer cells**

Jaiswal, A., Peddinti, G., Akimov, Y., Wennerberg, K., Kuznetsov, S., Tang, J. & Aittokallio, T., 1 Jun 2017, In: *Genome medicine*. 9, 15 p., 51.

Treatment of novel IL17A inhibitor in glioblastoma implementing 3rd generation co-culture cell line and patient-derived tumor model

Khan, M. S. S., Asif, M., Basheer, M. K. A., Kang, C. W., Al-Suede, F. S., Ein, O. C., Tang, J., Majid, A. S. A. & Majid, A. M. S. A., 15 May 2017, In: *European Journal of Pharmacology*. 803, p. 24-38 15 p.

**Systematic drug sensitivity testing reveals synergistic growth inhibition by dasatinib or mTOR inhibitors with paclitaxel in ovarian granulosa cell tumor cells**

Haltia, U.-M., Andersson, N., Yadav, B., Farkkila, A., Kuleskiy, E., Kankainen, M., Tang, J., Butzow, R., Riska, A., Leminen, A., Heikinheimo, M., Kallioniemi, O., Unkila-Kallio, L., Wennerberg, K., Aittokallio, T. & Anttonen, M., Mar 2017, In: *Gynecologic Oncology*. 144, 3, p. 621-630 10 p.

**Informatics Approaches for Predicting, Understanding, and Testing Cancer Drug Combinations**

Tang, J., 2017, *Kinase Signaling Networks*. Tan, A.-C. & Huang, P. H. (eds.). 1st ed. ed. New York: Humana press, p. 485-506 22 p. ( *Methods in Molecular Biology*; vol. 1636).

**Crowdsourced assessment of common genetic contribution to predicting anti-TNF treatment response in rheumatoid arthritis**

Sieberts, S. K., Zhu, F., Garcia-Garcia, J., Stahl, E., Pratap, A., Pandey, G., Pappas, D., Aguilar, D., Anton, B., Bonet, J., Eksi, R., Fornes, O., Guney, E., Li, H., Marin, M. A., Panwar, B., Planas-Iglesias, J., Poglayen, D., Cui, J. & Falcao, A. O. & 31 others, Suver, C., Hoff, B., Balagurusamy, V. S. K., Dillenberger, D., Neto, E. C., Norman, T., Aittokallio, T., Ammadud-din, M., Azencott, C.-A., Bellon, V., Boeva, V., Bunte, K., Chheda, H., Cheng, L., Corander, J., Dumontier, M., Goldenberg, A., Gopalacharyulu, P., Hajiloo, M., Hidru, D., Jaiswal, A., Kaski, S., Khalfaoui, B., Khan, S. A., Kramer, E. R., Marttinen, P., Pirinen, M., Saarela, J., Tang, J., Wennerberg, K. & Rheumatoid Arth Challenge, Aug 2016, In: *Nature Communications*. 7, 9 p., 12460.

**From drug response profiling to target addiction scoring in cancer cell models**

Yadav, B., Gopalacharyulu, P., Pemovska, T., Khan, S. A., Szwajda, A., Tang, J., Wennerberg, K. & Aittokallio, T., Oct 2015, In: *Disease Models & Mechanisms*. 8, 10, p. 1255-1264 10 p.

**What is synergy? The Saariselka agreement revisited**

Tang, J., Wennerberg, K. & Aittokallio, T., 1 Sept 2015, In: *Frontiers in Pharmacology*. 6, 5 p., 181.

**Systematic Mapping of Kinase Addiction Combinations in Breast Cancer Cells by Integrating Drug Sensitivity and Selectivity Profiles**

Szwajda, A., Gautam, P., Karhinen, L., Jha, S. K., Saarela, J., Shakyawar, S., Turunen, L., Yadav, B., Tang, J., Wennerberg, K. & Aittokallio, T., 20 Aug 2015, In: *Chemistry & Biology*. 22, 8, p. 1144-1155 12 p.

**TIMMA-R: an R package for predicting synergistic multi-targeted drug combinations in cancer cell lines or patient-derived samples**

He, L., Wennerberg, K., Aittokallio, T. & Tang, J., 1 Jun 2015, In: *Bioinformatics*. 31, 11, p. 1866-1868 3 p.

**A Bayesian Predictive Model for Clustering Data of Mixed Discrete and Continuous Type**

Blomstedt, P., Tang, J., Xiong, J., Granlund, C. & Corander, J., Mar 2015, In: *IEEE Transactions on Pattern Analysis and Machine Intelligence*. 37, 3, p. 489-498 10 p.

### **Toward more realistic drug-target interaction predictions**

Pahikkala, T., Airola, A., Pietila, S., Shakyawar, S., Szwajda, A., Tang, J. & Aittokallio, T., Mar 2015, In: *Briefings in Bioinformatics*. 16, 2, p. 325-337 13 p.

### **Network pharmacology applications to map the unexplored target space and therapeutic potential of natural products**

Kibble, M., Saarinen, N., Tang, J., Wennerberg, K., Makela, S. & Aittokallio, T., 2015, In: *Natural Product Reports*. 32, 8, p. 1249-1266 18 p.

### **Prediction of human population responses to toxic compounds by a collaborative competition**

Eduati, F., Mangravite, L. M., Wang, T., Tang, H., Bare, J. C., Huang, R., Norman, T., Kellen, M., Menden, M. P., Yang, J., Zhan, X., Zhong, R., Xiao, G., Xia, M., Abdo, N., Kosyk, O., Friend, S., Dearry, A., Simeonov, A. & Tice, R. R. & 100 others, Rusyn, I., Wright, F. A., Stolovitzky, G., Xie, Y., Saez-Rodriguez, J., Aittokallio, T., Alaimo, S., Amadoz, A., Ammad-ud-din, M., Azencott, C.-A., Bacardit, J., Barron, P., Bernard, E., Beyer, A., Bin, S., van Bömmel, A., Borgwardt, K., Brys, A. M., Caffrey, B., Chang, J., Chang, J., Chheda, H., Christodoulou, E. G., Clément-Ziza, M., Cohen, T., Cowherd, M., Demeyer, S., Dopazo, J., Elhard, J. D., Falcao, A. O., Ferro, A., Friedenberg, D. A., Giugno, R., Gong, Y., Gorospe, J. W., Granville, C. A., Grimm, D., Heinig, M., Hernansaiz, R. D., Hintsanen, P., Hochreiter, S., Huang, L.-C., Huska, M., Jaiswal, A., Jiao, Y., Kaski, S., Kaur, I., Khana, S. A., Klambauer, G., Krasnogor, N., Kuhn, M., Kurs, M. B., Kutum, R., Lazzarini, N., Lee, I., Leung, M. K. K., Lim, W. K., Liu, C., López, F. L., Mammana, A., Mayr, A., Michael, T., Mongiovi, M., Moore, J. D., Mpindi, J.-P., Narasimhan, R., Opiyo, S. O., Pandey, G., Peabody, A. L., Perner, J., Poso, A., Pulvirenti, A., Rawlik, K., Reinhardt, S., Riffle, C. G., Ruderfer, D., Sander, A. J., Savage, R. S., Scornet, E., Sebastian-Leon, P., Sharan, R., Simon-Gabriel, C. J., Stoven, V., Sun, J., Tang, J., Teixeira, A. L., Tenesa, A., Vert, J.-P., Vingron, M., Walter, T., Wennerberg, K., Whalen, S., Wiśniewska, Z., Wu, Y., Xu, H., Zhang, S., Zhao, J., Zheng, W. J., Ziwei, D. & Collaboration, T.N.-N.-U. D. T., 2015, In: *Nature Biotechnology*. 33, 9, p. 933-940 8 p.

### **Searching for Drug Synergy in Complex Dose–Response Landscapes Using an Interaction Potency Model**

Yadav, B., Wennerberg, K., Aittokallio, T. & Tang, J., 2015, In: *Computational and Structural Biotechnology Journal*. 13, p. 504 - 513 10 p.

### **Making Sense of Large-Scale Kinase Inhibitor Bioactivity Data Sets: A Comparative and Integrative Analysis**

Tang, J., Szwajda, A., Shakyawar, S., Xu, T., Hintsanen, P., Wennerberg, K. & Aittokallio, T., Mar 2014, In: *Journal of Chemical Information and Modeling*. 54, 3, p. 735-743 9 p.

### **Network Pharmacology Strategies Toward Multi-Target Anticancer Therapies: From Computational Models to Experimental Design Principles**

Tang, J. & Aittokallio, T., Jan 2014, In: *Current Pharmaceutical Design*. 20, 1, p. 23-36 14 p.

### **Target Inhibition Networks: Predicting Selective Combinations of Druggable Targets to Block Cancer Survival Pathways**

Tang, J., Karhinen, L., Xu, T., Szwajda, A., Yadav, B., Wennerberg, K. & Aittokallio, T., Sept 2013, In: *PLoS Computational Biology*. 9, 9, p. Article Number: e1003226 16 p.

### **Genomic, Transcriptomic, and Lipidomic Profiling Highlights the Role of Inflammation in Individuals With Low High-density Lipoprotein Cholesterol**

Laurila, P.-P., Surakka, I., Sarin, A.-P., Yetukuri, L., Hyötyläinen, T., Söderlund, S., Naukkarinen, J., Tang, J., Kettunen, J., Mirel, D. B., Soronen, J., Lehtimäki, T., Ruokonen, A., Ehnholm, C., Eriksson, J. G., Salomaa, V., Jula, A., Raitakari, O. T., Jarvelin, M.-R. & Palotie, A. & 5 others, Palotie, L., Oresic, M., Jauhiainen, M., Taskinen, M.-R. & Ripatti, S., Apr 2013, In: *Arteriosclerosis, Thrombosis, and Vascular Biology*. 33, 4, p. 847-U510 39 p.

### **Phospholipids and insulin resistance in psychosis: a lipidomics study of twin pairs discordant for schizophrenia**

Oresic, M., Seppänen-Laakso, T., Sun, D., Tang, J., Therman, S., Viehman, R., Mustonen, U., van Erp, T. G. M., Hyötyläinen, T., Thompson, P., Toga, A. W., Huttunen, M. O., Suvisaari, J., Kaprio, J., Lönnqvist, J. & Cannon, T. D., 2012, In: *Genome medicine*. 4, 1, 11 p.

### **Association of Lipidome Remodeling in the Adipocyte Membrane with Acquired Obesity in Humans**

Pietiläinen, K. H., Rog, T., Seppänen-Laakso, T., Virtue, S., Gopalacharyulu, P., Tang, J., Rodriguez-Cuenca, S., Maciejewski, A., Naukkarinen, J., Ruskeepää, A.-L., Niemela, P. S., Yetukuri, L., Tan, C. Y., Velagapudi, V., Castillo, S., Nygren, H., Hyötyläinen, T., Rissanen, A., Kaprio, J. & Yki-Järvinen, H. & 3 others, Vattulainen, I., Vidal-Puig, A. & Oresic, M., 2011, In: *PLoS Biology*. 9, 6, p. - 14 p.

**Metabolome in schizophrenia and other psychotic disorders: a general population study.**

Orešič, M., Tang, J., Seppänen-Laakso, T., Mattila, I., Saarni, S. E. M., Saarni, S. I., Lönnqvist, J., Sysiaho, M., Hyotylainen, T., Perala, J. & Suvisaari, J., 2011, In: Genome medicine. 3, 19, 14 p.

**Bayesian clustering of fuzzy feature vectors using a quasi-likelihood approach**

Marttinen, P., Tang, J., De Baets, B., Dawyndt, P. & Corander, J., 2009, In: IEEE Transactions on Pattern Analysis and Machine Intelligence. 31, 1, p. 74-85 12 p.

**Hyper-Recombination, Diversity, and Antibiotic Resistance in Pneumococcus**

Hanage, W. P., Fraser, C., Tang, J., Connor, T. R. & Corander, J., 2009, In: Science. 324, 5933, p. 1454-1457 4 p.

**Identifying currents in the gene pool for bacterial populations using an integrative approach**

Tang, J., Hanage, W., Fraser, C. & Corander, J., 2009, In: PLoS Computational Biology. 5, 8, p. e1000455 18 p.

**Integrating post-genomic approaches as a strategy to advance our understanding of health and disease**

Tang, J., Tan, C., Oresic, M. & Vidal-Puig, A., 2009, In: Genome medicine. 1, 3, p. 35 1 p.

**Enhanced Bayesian modelling in BAPS software for learning genetic structures of populations**

Corander, J., Marttinen, P., Siren, J. & Tang, J., 2008, In: BMC Bioinformatics. 9, 14 p.

**Bayesian analysis of population structure based on linked molecular information**

Corander, J. & Tang, J., 2007, In: Mathematical Biosciences. 205, 1, p. 19-31 13 p.

**T-BAPS: A bayesian statistical tool for comparison of microbial communities using terminal-restriction fragment length polymorphism (T-RFLP) data**

Tang, J., Tao, J., Urakawa, H. & Corander, J., 2007, In: Statistical applications in genetics and molecular biology. 6, 1, p. Article 30 20 p.

## Projects

**Cancer society of Finland - Individualized drug target combinations: prediction, testing and translation**

Tang, J. (Project manager), Aittokallio, T. (Project manager) & Wennerberg, K. (Project manager)  
01/01/2015 → 31/12/2016

**DrugComb: ERC Starting Grant: Informatics approaches for the rational selection of personalized cancer drug combinations**

Tang, J. (Project manager)  
01/06/2017 → 31/05/2022

**EU/RIA Infra/Eatris-Connect/101130349**

Scherer, A. (Project manager), Tang, J. (Project manager) & Eriksson (née Soikkeli), J. T. (Participant)  
European Commission  
01/05/2024 → 30/04/2027

**EU/RIA/Tang J\_DTRIP4H\_HORIZON\_101188432**

Andressoo, J.-O. (Project manager), Tang, J. (Project manager), Bao, J. (Participant), Mirzaie, M. (Participant) & Schorling, T. (Participant)  
European Commission – Joint Research Centre, European Commission  
01/01/2025 → 31/12/2028

**Juselius 2024-25\_Tang Jing**

Tang, J. (Project manager)  
Sigrid Juséliuksen Säätiö @003701165704@

01/05/2024 → 30/04/2025

**Network pharmacological modeling and drug screening of invasive functional genes in papillary thyroid carcinoma**

Tang, J. (Project manager)  
Suomen Akatemia Projektilaskutus  
01/03/2023 → 28/02/2025

**Personalizing health and care - creating medically-driven integrative bioinformatics applications focused on oncology, CNS disorders and their comorbidities**

Aittokallio, T. (Principal Investigator) & Tang, J. (Project manager)  
01/05/2015 → 30/04/2017

**Prediction of biological effects of drugs based on artificial intelligence**

Tang, J. (Project manager)  
Academy of Finland  
01/03/2024 → 28/02/2026

**Prediction of synergistic anticancer drug combinations and their potential side-effects by integrating transcriptional and pharmacological data**

Tang, J. (Project manager), Kibble, M. M. (Project manager) & Aittokallio, T. (Project manager)  
01/01/2013 → 31/12/2013

**ReSisTrace: Resistentejä syöpäsoluja jäljittäen lääkeyhdistelmien rationaaliseen suunnitteluun**

Tang, J. (Project manager), Bao, J. (Participant), Gao, L. (Participant) & Zhang, H. (Participant)  
Academy of Finland  
01/09/2022 → 31/08/2026

**CONTROL: Synthetic controllability of biological networks through understanding and engineering their control elements**

Aittokallio, T. (Principal Investigator) & Tang, J. (Project manager)  
01/09/2013 → 31/08/2017

**Syöpäsäätiö 2025\_Tang Jing**

Tang, J. (Project manager) & Dai, Y. (Participant)  
Syöpäsäätiö sr Cancerstiftelsen sr  
01/01/2025 → 31/12/2025

## Activities

**European Bioinformatics Institute**

Tang, J. (Visiting researcher)  
1 Dec 2013 → 13 Dec 2013

**European Bioinformatics Institute**

Tang, J. (Visiting researcher)  
1 Oct 2013 → 9 Oct 2013

**Blavatnik School of Computer Science, Tel-Aviv University**

Tang, J. (Visiting researcher)  
1 Nov 2009 → 1 Dec 2009