MARIA (MASHA) SERGEEVA, Ph.D.

Mobile: 858-663-1136
E-mail: msergeeva@hotmail.com

SUMMARY

- DMPK expert proficient in drug discovery and development in various therapeutic areas; experienced in advancing projects from early discovery to clinical development; successfully implemented several IND-enabling programs; set up FIH doses and analyzed clinical data.
- Combination of expertise with major areas in DMPK, Bioanalysis, Safety Assessment, and Clinical Pharmacology; good knowledge of Medicinal Chemistry.
- Experience in preparing documentation for DMPK sections of IND submissions in the following therapeutic areas: anticancer (2002, 2007), antiviral (2005, 2008), and autoimmune (2010).
- Effective leadership skills; excellent analytical and problem-solving ability.

RESEARCH EXPERIENCE

DMPK4BIOTECH, Inc.

- **Jan 2014-present DMPK4BIOTECH, Inc., Principal**
  - Drug Metabolism, Bioanalytical and Pharmacokinetics consulting for biotech companies

CalciMedica, Inc., La Jolla, CA

- **2010-Nov 2013 Director, DMPK/Tox**
  - Drug discovery and development:
    - Lead internal DMPK activities in support of the Company's Medicinal Chemistry efforts including *in vitro* ADME and exploratory PK;
    - Ran the Company's IND-enabling programs; ensured adherence to timelines;
    - Managed outsourcing of preclinical DMPK, toxicology and safety studies to CRO's;
    - Reviewed and summarized data from toxicology and safety studies;
    - Generated preclinical reports for in-house and outsourced DMPK studies;
    - Authored Sections 2.6.4 and 2.6.5 of IND in CTD format.
  - Clinical:
    - Oversaw bioanalysis of human plasma and urine samples at a CRO;
    - Analyzed human PK data, performed PK modeling and simulations.

Anadys Pharmaceuticals, Inc., San Diego, CA (2004-2010)

- **2007-2010 Associate Director, Pharmacology/ADME**
  - Lead a DMPK/Tox sub-team of the ANA598 Development team:
    - Provided leadership and direction to the sub-team; monitored, directly or through reports or sub-team members non-GLP and GLP studies including mass balance/tissue distribution/metabolite profiling studies, bridging PK studies, toxicology, reprotox and safety studies to support regulatory submissions.
  - Reviewed clinical bioanalytical data for healthy subjects and patients; determined and analyzed PK parameters, performed PK modeling and simulations.

- Compiled and reviewed preclinical study reports intended for IND submissions; reviewed IND Item 8 for multiple applications.

- **2007 Group Leader, Pharmacology/DMPK**
  - Built an efficient *In Vitro* Pharmacology/DMPK group (6 people) that encompassed preclinical *in vitro* and *in vivo* compound evaluation efforts of the Company:
    - *in vitro* ADME assays;
    - Preclinical PK and DRF/toxicology studies;
    - Bioanalysis in plasma and tissues (HPLC, LC/MS/MS); PK/TK analysis;
  - Served as a DMPK representative on two projects – discovery and development:
    - Provided guidance to medicinal chemists on improvement of lead compounds' ADME properties (elimination of "hot spots", increasing oral bioavailability);
    - Interpreted PK parameters of lead compound(s) dosed as a single compound or in a cassette; established correlations of PK parameters with *in vitro* ADME screening results for the prediction of *in vivo* properties of new compound(s);
    - Predicted human dosing regimen based on *in vitro* ADME data and/or animal PK data.
- **2004-2007 Principal Scientist, DMPK**
  - Set up *in vitro* ADME screening cascade including the following assays:
    - Lead compound stability in human and animal liver microsomes; in fresh and cryopreserved hepatocytes; in buffer, plasma, and whole blood;
    - CYP reaction phenotyping; metabolite ID; formation of reactive intermediates;
    - CYP inhibition by lead compound(s), reversible and irreversible components;
    - CYP induction by lead compound(s) in plated human hepatocytes;
    - Caco-2 bi-directional permeability assay; evaluation of the role of efflux;
    - Lead compound(s) protein binding *in vitro*;
    - Lead compound(s) distribution into different tissues *in vivo*.

ThioPharma, Inc., San Diego, CA

- **2003-2004 Senior Scientist**
  - Studied drug stability and identified *in vitro* drug metabolites.

NewBiotics, Inc., San Diego, CA

- **1999-2003 Senior Research Investigator, Project Team Leader**
  - Identified intracellular metabolites and determined the mechanism of action of drug candidates using [^{14}C]- and [^{3}H]-labeled compounds.
  - Studied drug stability in plasma, serum, and whole blood; determined optimal conditions for sample collection by inhibiting enzymes responsible for *ex vivo* compound degradation.
  - Evaluated drug transport and uptake in bacterial and mammalian cell systems.
  - Initiated a new research project and served as a project team leader to develop an antibacterial drug targeting peptide deformylase (US Patents #7,001,922; #7,163,923).
  - Contributed to IND filing, periodic FDA report writing, and patent applications.

EnzyMed, Inc., Iowa City, IA

- **1998-1999 Senior Research Scientist**
  - Used high-throughput screening to monitor enzyme catalyzed synthesis and modification of various organic compounds using HPLC and LC/MS.
  - Developed enzyme-based biocatalytic preparations for reactions in non-aqueous media.

Department of Chemical Engineering, University of Iowa, Iowa City, IA

- **1996-1998** **Assistant Research Scientist**
- **1995-1996** **Postdoctoral Associate** (Advisor: Prof. J.S. Dordick)
  - Developed a method for the preparation of organic solvent soluble and highly active enzymes (US Patent #6,171,813) to catalyze reactions in non-aqueous media.
  - Developed a method for the incorporation of enzymes into plastics (US Patents #5,914,367; #6,291,582) to catalyze modification of natural compounds and peptide synthesis in non-aqueous media with high rates and yields.

Department of Biochemistry,
Wageningen Agricultural University, The Netherlands

- **1992-1995** **Postdoctoral Associate** (Advisor: Prof. A.J. Kirby (Cambridge, UK))
  - Designed haptens for catalytic antibodies for certain types of reactions; generated monoclonal antibodies, and achieved the acceleration of the reaction by three orders of magnitude.

Laboratory of Kinetics of Biochemical Processes,
A.N. Bach Institute of Biochemistry, Russian Academy of Sciences, Moscow

- **1988-1992** **Research Scientist**
  - Studied enzyme behavior in non-aqueous reaction systems; suggested a new practical quantitative criterion for the selection of optimal organic solvents for biocatalytic conversions; used enzyme modification and immobilization to improve their stability towards denaturating effects of water-miscible organic solvents.

EDUCATION

- **1988** Ph.D. in Biochemistry, Moscow State University, Russia;
- **1981** M.S. (with Honors) in Chemistry, Moscow State University, Russia

- **Continuing Education**:
  - Biostatistics, UCSD Extension, San Diego, 2009.
  - Disease Disorders, UCSD Extension, San Diego, 2007.
  - Medicinal Chemistry Intensive Program, UCSD Extension, San Diego, 2006.
  - LiveLink 9.5, OpenText Corporation, 2006.
  - Drug Metabolism, UCSD Extension, San Diego, 2005.
  - Drug Metabolism and Drug-Drug Interactions: Principles, Pitfalls, and Perspectives, Southwestern Medical School, Dallas, 2005.
  - Microsoft Project, Smart Projects, San Diego 2005.
  - Writing Preclinical Reports for IND Submissions, UCSD Extension, San Diego, 2005.

SPECIALIZED SOFTWARE

- LiveLink, Microsoft Project, WinNonLin, Phoenix, SigmaPlot, Kaleidograph, GraphPad Prizm, XLStat
- Analyst, Chemstation, Chromeleon, SoftMax

PUBLICATIONS

- Five US patents (#5,914,367, #6,171,813, #6,291,582, #7,001,922, #7,163,923)
- Over 40 original and review articles and over 40 articles presented at conferences

PROFESSIONAL AFFILIATIONS

- American Chemical Society (ACS)

PUBLICATIONS

Selected original and review articles (out of over 40 total)

1. Ruebsam, F., Murphy, D.E., Tran, C.V., Li, L.S., Zhao, J., Dragovich, P.S., McGuire, H.M., Xiang, A.X., Sun, Z., Ayida, B.K., Blazel, J.K., Kim, S.H., Zhou, Y., Han, Q., Kissinger, C.R., Webber, S.E., Showalter, R.E., Shah, A.M., Tsan, M., Patel, R.A., Thompson, P.A., Lebrun, L.A., Hou, H.J., Kamran, R., **Sergeeva, M.V.**, Bartkowski, D.M., Nolan, T.G., Norris, D.A., Khandurina, J., Brooks, J., Okamoto, E., Kirkovsky, L. Discovery of tricyclic 5,6-dihydro-1H-pyridin-2-ones as novel, potent, and orally bioavailable inhibitors of HCV NS5B polymerase. *Bioorg. Med. Chem. Lett.,* 2009, **19**: 6404-6412.

2. Ellis, D.A., Blazel, J.K., Tran, C.V., Ruebsam, F., Murphy, D.E., Li, L.S., Zhao, J., Zhou, Y., McGuire, H.M., Xiang, A.X., Webber, S.E., Zhao, Q., Han, Q., Kissinger, C.R., Lardy, M., Gobbi, A., Showalter, R.E., Shah, A.M., Tsan, M., Patel, R.A., LeBrun, L.A., Kamran, R., Bartkowski, D.M., Nolan, T.G., Norris, D.A., **Sergeeva, M.V.**, Kirkovsky, L. 2.5,5'- and 6,6'-dialkyl-5,6-dihydro-1H-pyridin-2-ones as potent inhibitors of HCV NS5B polymerase. *Bioorg. Med. Chem. Lett.,* 2009, **19**: 6047-6052.

3. Ruebsam, F., Tran, C.V., Li, L.-S., Kim, S.H., Xiang, A.X., Zhou, Y., Blazel, J.K., Sun, Z., Dragovich, P.S., Zhao, J., McGuire, H., Murphy, D.E., Tran, M.T., Stankovic, N., Ellis, D.A., Gobbi, A., Showalter, R.E., Webber, S.E., Shah, A.M., Tsan, M., Patel, R., LeBrun, L., Hou, H.J., Kamran, R., **Sergeeva, M.V.**, Bartkowski, D.M., Nolan, T.G., Norris D.A., Kirkovsky, L. 5,6-Dihydro-1*H*-pyridin-2-ones as potent inhibitors of HCV NS5B polymerase. *Bioorg. Med. Chem. Lett.,* 2009, **19**: 451-458.

4. Dragovich, P.S., Blazel, J.K., Ellis, D.A., Han, Q., Kamran, R., Kissinger, C.R., LeBrun, L.A., Li, L.-S., Murphy, D.E., Noble, M., Patel, R., Ruebsam, F., **Sergeeva, M.V.**, Shah, A.M., Showalter, R.E., Tran, C.V., Tsan, M., Webber, S.E., Kirkovsky, L., and Zhou, Y. Novel HCV NS5B polymerase inhibitors derived from 4-(1',1'-dioxo-1',4'-dihydro-1'λ^6-benzo[1',2',4']thiadiazin-3'-yl)-5-hydroxy-2*H*-pyridazin-3-ones: Part 5. Exploration of pyridazinones containing 6-amino-substituents. *Bioorg. Med. Chem. Lett.,* 2008, **18**: 5635-5639.

5. Ruebsam, F., Sun, Z., Ayida, B.K., Webber, S.E., Zhou, Y., Zhao, J., Kissinger, C.R., Showalter, R.E., Shah, A.M., Tsan, M., Patel, R., LeBrun, L.A., Kamran, R., **Sergeeva, M.V.**, Bartkowski, D.M., Nolan, T.G., Norris, D.A., and Kirkovsky, L. Hexahydro-pyrrolo- and hexahydro-*1H*-pyrido[1,2-*b*]pyridazin-2-ones as potent inhibitors of HCV NS5B polymerase. *Bioorg. Med. Chem. Lett.,* 2008, **18**: 5002-5005.

6. Ellis, D.A., Blazel, J.K., Webber, S.E., Tran, C.V., Dragovich, P.S., Sun, Z., Ruebsam, F., McGuire, H.M., Xiang, A.X., Zhao, J., Li, L.-S., Zhou, Y., Han, Q., Kissinger, C.R., Showalter, R.E., Lardy, M., Shah, A.M., Tsan, M., Patel, R., LeBrun, L.A., Kamran, R., Bartkowski, D.M., Nolan, T.G., Norris, D.A., **Sergeeva, M.V.**, and Kirkovsky, L. 4-(1,1-Dioxo-1,4-dihydro-1λ^6-benzo[1,4]thiazin-3-yl)-5-hydroxy-2*H*-pyridazin-3-ones as potent inhibitors of HCV NS5B polymerase. *Bioorg. Med. Chem. Lett.,* 2008, **18**: 4628–4632.

7. Kim, S.H., Tran, M.T., Ruebsam, F., Xiang, A.X., Ayida, B., McGuire, H., Ellis, D., Blazel, J., Tran, C.V., Murphy, D.E., Webber, S.E., Zhou, Y., Shah, A.M., Tsan, M., Showalter, R.E., Patel, R., Gobbi, A., LeBrun, L.A., Bartkowski, D.M., Nolan, T.G., Norris, D.A., **Sergeeva, M.V.,** Kirkovsky, L., Zhao, Q., Han, Q., and Kissinger, C.R.. Structure-based design, synthesis, and biological evaluation of 1,1-dioxoisothiazole and benzo[*b*]thiophene-1,1-dioxide derivatives as novel inhibitors of hepatitis C virus NS5B polymerase. *Bioorg. Med. Chem. Lett.,* 2008, **18**: 4181–4185.

8. Ruebsam, F., Webber, S.E., Tran, M.T., Tran, C.V., Murphy, D.E., Zhao, J., Dragovich, P.S., Kim, S.H., Li, L.-S., Zhou, Y., Han, Q., Kissinger, C.R., Showalter, R.E., Lardy, M., Shah, A.M., Tsan, M., Patel, R., LeBrun, L.A., Kamran, R., **Sergeeva, M.V.**, Bartkowski, D.M., Nolan, T.G., Norris, D.A., and Kirkovsky, L. Pyrrolo[1,2-*b*]pyridazin-2-ones as potent inhibitors of HCV NS5B polymerase. *Bioorg. Med. Chem. Lett.,* 2008, **18**: 3616–3621.

9. **Sergeeva, M.V**., Zhou, Y., Bartkowski, D.M., Nolan, T.G., Norris, D.A., Okamoto, E., Kirkovsky, L., Kamran, R., LeBrun, L., Tsan, M., Patel, R., Shah, A.M., Lardy, M., Gobbi, A., Li, L.-S., Zhao, J., Bertolini, T., Stankovic, N., Sun, Z., Murphy, D.E., Webber, S.E., Dragovich, P.S. Novel HCV NS5B polymerase inhibitors derived from 4-(1',1'-dioxo-1',4'-dihydro-1'λ^6-benzo[1',2',4']thiadiazin-3'-yl)-5-hydroxy-2*H*-pyridazin-3-ones: Part 4. Optimization of DMPK properties. *Bioorg. Med. Chem. Lett.,* 2008, **18**: 3421–3426.

10. Li, L.-S., Zhou, Y., Murphy, D.E., Stankovic, N., Zhao, J., Dragovich, P.S., Bertolini, T., Sun, Z., Ayida, B., Tran, C.V., Ruebsam, F., Webber, S.E., Shah, A.M., Tsan, M., Showalter, R.E., Patel, R., LeBrun, L., Bartkowski, D.M., Nolan, T.G., Norris, D.A., Kamran, R., Brooks, J., **Sergeeva, M.V**., Kirkovsky, L., Zhao, Q., Kissinger, C.R. Novel HCV NS5B polymerase inhibitors derived from 4-(1',1'-dioxo-1',4'-dihydro-1'λ^6-benzo[1',2',4']thiadiazin-3'-yl)-5-hydroxy-2*H*-pyridazin-3-ones: Part 3. Further optimization of the 2-, 6-, and 7'-substituents and initial pharmacokinetic assessments. *Bioorg. Med. Chem. Lett.,* 2008, **18**: 3446–3455.

11. Zhou, Y., Li, L.-S., Dragovich, P.S., Murphy, D.E., Tran, C.V., Ruebsam, F., Webber, S.E., Shah, A.M., Tsan, M., Averill, A., Showalter, R.E., Patel, R., Han, Q., Zhao, Q., Hermann, T., Kissinger, C.R., LeBrun, L., **Sergeeva, M.V**. Novel HCV NS5B polymerase inhibitors derived from 4-(1',1'-dioxo-1',4'-dihydro-1'λ^6-benzo[1',2',4']thiadiazin-3'-yl)-5-hydroxy-2*H*-pyridazin-3-ones: Part 2: Variation of the 2- and 6-pyridazinone substituents. *Bioorg. Med. Chem. Lett.,* 2008, **18**: 1419–1424.

12. Zhou, Y., Webber, S.E., Murphy, D.E., Li L.-S., Dragovich, P.S., Tran, C.V., Sun, Z., Ruebsam, F., Shah, A.M., Tsan, M., Showalter, R.E., Patel, R., Li, B., Zhao, Q., Han, Q., Hermann, T., Kissinger, C.R., LeBrun, L., **Sergeeva, M.V.**, Kirkovsky, L. Novel HCV NS5B polymerase inhibitors derived from 4-(1',1'-dioxo-1',4'-dihydro-1'λ^6-benzo[1',2',4']thiadiazin-3'-yl)-5-hydroxy-2*H*-pyridazin-3-ones: Part 1: Exploration of 7'-substitution of benzothiadiazine. *Bioorg. Med. Chem. Lett.,* 2008, **18**: 1413–1418.

13. Newsam, J.M., King-Smith, D., Jain, A., Karande, P., Feygin, I., Burbaum, J., Gowrishankar, T.R., **Sergeeva, M**., Mitragotri, S. Leveraging high throughput experimentation at the materials-biology interface. *J. Mater. Chem*., 2005, **15**: 3061 - 3068.

14. Stone**,** G.W., Zhang, Q, Castillo, R.S., Doppalapudi, V.R., Bueno, A.R., Lee, J.Y., Li, Q., **Sergeeva, M.V.**, Khambatta, G., Georgopapadakou, N.H. Mechanism of action of NB2001 and NB2030, novel antibacterial agents activated by β-lactamases. *Antimicrob. Agents Chemother*., 2004, **48**(2): 477-83.

15. Sergeeva, O.A., Khambatta, G., Cathers, B.E., **Sergeeva, M.V.** Kinetic properties of human thymidylate synthase, an anticancer drug target. *Biochem. Biophys. Res. Commun*., 2003, **307**: 297-300.

16. **Sergeeva, M.V.**, Cathers, B.E. Cellular transformation of the investigational new anticancer drug NB1011, a phosphoramidate of 5-(2-bromovinyl)-2'-deoxyuridine, results in modification of cellular proteins not DNA. *Biochem. Pharmacol.*, 2003, **65**(5):823-31.

17. Lackey, D., Groziak, M., **Sergeeva, M.V.**, Li, Q., Boyer, C., Shepard, H.M. Enzyme-catalyzed therapeutic agent (ECTA) design: activation of the antitumor ECTA compound NB1011 by thymidylate synthase. *Biochem. Pharmacol.*, 2001, **61**(2):179-89.

18. **Sergeeva, M.V.**, Mozhaev, V.V., Rich, J.O, Khmelnitsky, Yu.L. Lipase-catalyzed transamidation of non-activated amides in organic solvent. *Biotech.Lett.*, 2000, **22**, 1419-1422.

19. Dordick, J.S., Khmelnitsky, Yu.L., **Sergeeva, M.V.** The evolution of biotransformation technologies. *Curr. Opin. Microbiol*. 1998, **1**, 311-318.

20. Dordick, J.S., Novick, S.J., **Sergeeva, M.V.** Biocatalytic plastics. *Chemistry & Industry* 1998, N1, 17-20.

21. Wang, P., **Sergeeva, M.V.,** Lim, L., Dordick, J.S. Biocatalytic plastics as active and stable materials for biotransformations. *Nat Biotechnol*. 1997, **15**(8): 789-93.

22. **Sergeeva, M.V.**, Paradkar, V.M., Dordick, J.S. Enzymatic peptide synthesis using proteases dissolved in organic solvents. *Enzyme Microb. Technol.* 1997, **20**, 623-628.

23. Rich, J.O., Wang, P., Martin, B.D., Patil, N., **Sergeeva, M.V.,** Dordick, J.S. Biocatalysis in organic solvents for the production of chemicals and specialty polymers. *Chimia* 1996, **50**, 428-429.

24. **Sergeeva, M.V.**, Yomtova, V., Parkinson, A., Overgaauw, M., Pomp, R., Schots, A., Kirby, A.J., Hilhorst R. Hapten design for antibody catalyzed decarboxylation and ring opening reactions of benzisoxazoles. *Isr. J. Chem.* 1996, **36**, 177-183.

25. Hilhorst, R., **Sergeeva, M.,** Heering, D., Rietveld, P., Fijneman, P., Wolbert, R.B., Dekker, M., Bijsterbosch, B.H. Protein extraction from an aqueous phase into a reversed micellar phase: Effect of water content and reversed micellar composition. *Biotechnol. Bioeng*. 1995, **46**(4): 375-87.

Invited oral presentation

1. **Sergeeva, M.V.** Novel antibacterial agents working via enzyme catalyzed therapeutic activation (ECTA): Example of peptide deformylase. *Gordon Research Conference on Staphylococcal Diseases*, Queen's College, Oxford, UK, September 7-12, 2003.

Selected articles presented at conferences (out of over 40 total)

1. Stauderman, K., Whitten, J., Schoenfeld, S., Roos, J., **Sergeeva, M**., Cao, J., Ramos, S., Grigoryev, S., Velicelebi, G. CM2489: First-in-Class Oral, Small Molecule CRAC Channel Inhibitor for the Treatment of Psoriasis. *Federation of Clinical Immunology Societies, 12th Annual Meeting*, Vancouver, BC, Canada, 2012.

2. Roos, J., Ramos, S., Grigoryev, S., **Sergeeva, M**., Rogers, E., Datta, P., Butler, L., Whitten, J., Stauderman, K., Velicelebi, G. Compound β, a Potent CRAC Channel Inhibitor that Blocks T and Mast Cells Function and Is Efficacious in Rat Models of Arthritis and Asthma. *The Calcium Signaling Gordon Research Conference*, Waterville, Maine, 2011

3. Fletcher, S.P., Bauman, L.A., Eam, B., **Sergeeva, M.V.**, Khatsenko, O., Harding, T.W., Rahimy, M., Freddo, J.L. and Appleman, J.A. PK/PD Assessment of a Phase 1 Healthy Volunteer Study with ANA773, an Oral Inducer of Endogenous Interferons via TLR7, for The Treatment of HCV. *44th Annual Meeting of the European Association for the Study of the Liver (EASL)*, Copenhagen (Denmark), 2009

4. Rahimy, M.H., Crowley, C.A., Freddo, J.L., **Sergeeva, M.V.**, Golec, B. Results of a Phase I Safety, Tolerability and Pharmacokinetic Study of ANA598, a Non-Nucleoside NS5B Polymerase Inhibitor, in Healthy Volunteers. *American Association for the Study of Liver Diseases (AASLD)*, San Francisco, 2008.

5. Steffy, K., Kirkovsky, L., Lanford, R.E., Showalter, R.E., **Sergeeva, M.**, Zhao, J., Averett, D.R., Appleman, J.R. Antiviral Efficacy of the HCV RNA Polymerase Inhibitor ANA598 in the Chimpanzee Model of HCV Infection. *American Association for the Study of Liver Diseases (AASLD)*, San Francisco, 2008.

6. Khatsenko, O., Norris, D., Bartkowski, D., Nolan, T., Kirkovsky, L., **Sergeeva, M.**, Appleman, J. Pharmacokinetics of ANA598, a Novel Non-nucleoside Drug Candidate for Hepatitis C Treatment, in Four Preclinical Species. *American Association of Pharmaceutical Scientists (AAPS)*, Atlanta, 2008.

7. **Sergeeva, M.V.**, LeBrun, L.A., Kamran, R., Brooks, J., Bartkowski, D.M., Nolan, T.G., Norris, D.A., Zhou, Y., Kirkovsky, L. Tissue Distribution and Excretion Properties of Thiadiazine Containing NS5B Inhibitors in Rats. *International Society for the Study of Xenobiotics (ISSX),* San Diego, 2008.

8. Tran, C.V., Brooks, J., Bartkowski, D.M., Blazel, J.K, Dao, K., Dragovich, P.S., Ellis, D.A., Gobbi, A., Kamran, R., Kim, S.H., Kirkovsky, L., LeBrun, L.A., Li, L.-S., Murphy, D.E., Nolan, T.G., Norris, D.A., Patel, R., Ruebsam, F., **Sergeeva, M.V.**, Shah, A.M., Showalter, R.E., Stankovic, N., Sun, Z., Tran, M.T., Tsan, M., Webber, S.E., Xiang, A.X., Zhao, J., Zhou. Y. Identification of potent, orally bioavailable non-nucleoside HCV RNA polymerase inhibitors. *15th International Symposium on Hepatitis C Virus & Related Viruses*, San Antonio, 2008.

9. Tran, C.V., Ellis, D.A., Blazel, J., Dragovich, P.S., Sun, Z., Ruebsam, F., McGuire, H.M., Xiang, A.X., Zhao, J., Li, L.-S., Zhou, Y., Webber, S.E., Han, Q., Kissinger, C.R., Showalter, R.E., Lardy, M., Shah, A.M., Tsan, M., Patel, R., LeBrun, L., Kamran, R., **Sergeeva, M.V.**, Kirkovsky, L. 4-(1,1-Dioxo-1,4-dihydro-1λ^6-benzo[1,4]thiazin-3-yl)-5-hydroxy-2*H*-pyridazin-3-ones are a novel series of molecules which inhibit the HCV NS5B polymerase. *HEP DART,* Lahaina (Hawaii), 2007.

10. Ruebsam, F., Webber, S.E., Tran, M.T., Tran, C.V., Murphy, D.E., Zhao, J., Dragovich, P.S., Kim, S.H., Li, L.-S., Zhou, Y., Zhao, Q., Kissinger, C.R., Showalter, R.E., Lardy, M., Shah, A.M., Tsan, M., Patel, R., LeBrun, L., Kamran, R., **Sergeeva, M.V.**, Kirkovsky, L. Pyrrolo[1,2-*b*]pyridazin-2-ones show promising *in vitro* antiviral activity against HCV NS5B polymerase. *HEP DART,* Lahaina (Hawaii), 2007.

11. Kirkovsky, L., Zhou, Y., Norris, D., Okamoto, E., Nolan, T., Bartkowski, D., Khandurina, J., **Sergeeva, M.**, Murphy, D., Ayida, B., Xiang, A., Ellis, D., Blazel, J., Sun, Z. ANA598, a novel non-nucleoside inhibitor of HCV NS5B polymerase, exhibits favorable pharmacokinetic properties in multiple preclinical species. *American Association for the Study of Liver Diseases (AASLD)*, Boston, 2007.

12. **Sergeeva, M.,** Shah, A., Nobel, M., Tsan, M., Patel, R., Showalter, R., Kamran, R., LeBrun, L., Tran, C., Ruebsam, F., Murphy, D., Dragovich, P., Zhou, Y., Kirkovsky, L. ANA598, a novel non-nucleoside inhibitor of HCV NS5B polymerase, exhibits potent anti-HCV activity and favorable ADME characteristics *in vitro*. *41st Western Regional Meeting of the American Chemical Society (ACS),* San Diego, 2007.

13. Kirkovsky, L., Zhou, Y., Shah, A., Tsan, M., LeBrun, L., **Sergeeva, M.**, Norris, D., Bartkowski, D., Nolan, T., Khandurina, J. Preclinical characterization of a novel, potent, and pharmacokinetically appealing non-nucleoside inhibitor of HCV NS5b polymerase. *14th International Symposium on Hepatitis C Virus & Related Viruses.* Glasgow, UK, 2007.

14. Zhou, Y., Li, L.-S., Webber, S., Ayida, B., Bertolini, T., Sun, Z., Zhao, J., Stankovic, N., Patel, R., Li, B., LeBrun, L., Kamran, R., **Sergeeva, M.**, Bartkowski, D., Khandurina, J. Potent HCV NS5B polymerase inhibitors derived from 5-hydroxy- 3(2*H*)-pyridazinones: Part 2. Variation of the 2- and 6-pyridazinone substituents. *20th International Conference on Antiviral Research (ICAR)*, Palm Springs, CA, 2007.

15. Stone, G.W., Zhang, Q., Lee, J.Y., **Sergeeva, M.V.**, Khambatta, G., Bueno, A.R., Li, Q., Georgopapadakou, N.H. Uptake of six antibacterials with different hydrophobicities in *Escherichia coli* and *Staphylococcus aureus*. *American Society for Microbiology (ASM)*, Washington, DC, 2003, #A-154.

16. Stone, G.W., Zhang, Q., **Sergeeva, M.V.**, Khambatta, G., Bueno, A.R., Lee, J.Y., Li, Q., Georgopapadakou, N.H. Transport of macrolides, tetracyclines and quinolones by methicillin-resistant *Staphylococcus aureus* strains. *American Society for Microbiology (ASM)*, Washington, DC, 2003, #A-086.

17. Cathers, B.E., Li, Q., Khambatta, G., Lee, J.Y., Bueno, A.R., **Sergeeva, M.V.**, Bychowski, R.A., Georgopapadakou, N.H. Release of an antibacterial agent through activation by the bacterial specific enzyme, L-tryptophanase. *Experimental Biology*, San Diego, 2003, #660.5.

18. **Sergeeva, M.V.**, Khambatta, G., Cathers, B.E., Castillo, R.S., Doppalapudi, V.R., Bychowski, R.A., Macdonald, J.E., Georgopapadakou, N.H. Plasma stability of antibacterial N-formyldipeptide esters acting via peptide deformylase. *Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC)*, San Diego, 2002, #F-738.

19. **Sergeeva, M.V.**, Khambatta, G., Cathers, B.E., Castillo, R.S., Doppalapudi, V.R., Bendall, H.H., Bueno, A.R., Lee, J.Y., Li, Q., Georgopapadakou, N.H. Antibacterial agents activated by peptide deformylase. *102nd Annu. Meet. American Society for Microbiology (ASM)*, Salt Lake City, 2002, #A-73.

20. Stone, G.W., Zhang, Q., Castillo, R.S., Doppalapudi, V.R., Bueno, A.R., Lee, J.Y., Li, Q., **Sergeeva, M.V.**, Khambatta, G., Georgopapadakou, N.H.. NB2001 and NB2030: Antibacterial agents activated by β-lactamase. *102nd Annual Meeting of American Society for Microbiology (ASM)*, Salt Lake City, 2002, #A-74.

21. **Sergeeva, M.V.**, Khambatta, G., Cathers, B.E., Castillo, R.S., Doppalapudi, V.R., Bychowski, R.A., Macdonald, J.E., Bueno, A.R., Lee, J.Y., Li, Q., Georgopapadakou, N.H. Enzyme Catalyzed Therapeutic Activation (ECTA) involving peptide deformylase. *Experimental Biology*, New Orleans, 2002. #171.10.

22. **Sergeeva, M.V.**, Cathers, B.E., Lackey, D.B., Shepard, H.M. Characterization of intracellular transformations of NB1011 – a novel anti-cancer agent that is preferentially cytotoxic in tumor cells. *Experimental Biology*, Orlando, 2001, #455.2.

23. Li, Q, Castillo, R., Lee, J., **Sergeeva, M.V.**, Shepard, H.M, Chan, M.F. NB2001: A novel cephalosporin antibiotic with selective activity against β-lactamase-producing bacteria. *International Conference on Emerging Infectious Diseases (ICEID)*, Atlanta, 2000.

24. **Sergeeva, M.V.**, Boyer, C., Lackey, D., Lee, J., Li, Q., Shepard, H.M. Role of thymidylate synthase in generation of cytotoxic species in tumor cells. *American Society for Biochemistry and Molecular Biology and American Society for Pharmacology and Experimental Therapeutics (ASBMB and ASPET)*, Boston, 2000, #165.

25. Li, Q., **Sergeeva, M.V.**, Boyer, C., Lee, J., Lackey, D., Shepard, H.M. Thymidylate synthase catalyzed generation of cytotoxic species preferentially inside tumor cells. *American Association for Cancer Research (AACR)*, San Francisco, 2000, #32.

26. Dordick, J.S., Novick, S.J., **Sergeeva, M.V.** Biocatalytic plastics: The marriage of enzyme technology and polymer chemistry. *American Institute of Chemical Engineers Annual Meeting*, Miami, 1998.

27. Dordick, J.S., Novick, S.J., **Sergeeva, M.V.**, Liu, X.-C., Rich, J.O. Making enzymes work for synthetic chemistry. *216th National Meeting of American Chemical Society (ACS)*, Boston, 1998.

28. Novick, S.J., Wang, P., **Sergeeva, M.V.**, Dordick, J.S. Biocatalytic plastics as active and stable materials for biotransformations. *216th National Meeting of American Chemical Society (ACS)*, Boston, 1998.

29. **Sergeeva, M.V.**, Dordick, J.S. Biocatalytic plastics. *Biocatalysis-98: Fundamentals & Applications*, Moscow, 1998.

30. **Sergeeva, M.V.**, Dordick, J.S. Enzymatic peptide synthesis using ion-paired organic solvent soluble proteases. *The 6th Netherlands Biotechnology Congress,* Amsterdam, 1996, PH-3.

31. **Sergeeva, M.V.**, Yomtova, V., Parkinson, A., Kirby, A.J., Overgaauw, M., Pomp, R., Schots A., Hilhorst, R. Hapten design for antibody-catalyzed decarboxylation and ring-opening reactions of benzisoxazoles. *The 6th Netherlands Biotechnology Congress,* Amsterdam, 1996, PH-2.