

CURRICULUM VITAE

Tatiana Bronich, Ph.D.

Dean and Professor

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EDUCATION AND DEGREES GRANTED

- M.Sc. in Chemistry, diploma with distinction (M.S. equivalent), Faculty of Chemistry, M.V. Lomonosov Moscow State University, Moscow, Russia
Thesis: "*Conformation transitions in the solutions of liquid-crystalline polymers with side-chain mesogenic groups*"
- Research course and fellowship in the Martin Luther University, Halle, Germany
- Ph.D. in Polymer Chemistry; Department of Polymer Sciences, M.V. Lomonosov Moscow State University, Moscow, Russia
Thesis: "*Substitution reactions in multicomponent polyelectrolyte systems*"

APPOINTMENTS, AFFILIATIONS AND EXPERIENCE:

- Dean and Professor, School of Pharmacy and Pharmaceutical Sciences, Bouvé College of Health Sciences, Northeastern University, Boston, MA, 2021-present
- Parke-Davis Professor, Department of Pharmaceutical Sciences, College of Pharmacy, University of Nebraska Medical Center, Omaha, NE, 2012 - 2021
- Associate Dean for Research and Graduate Studies, College of Pharmacy, 2019 - 2021
- Director, NIH Center of Biomedical Research Excellence "Nebraska Center for Nanomedicine", 2012 - 2021
- Co-Director, Center for Drug Delivery and Nanomedicine, 2012 - 2021
- Associate Director of the Center for Drug Delivery and Nanomedicine
- Director, Nanomaterials Core Facility, 2017 - 2021
- Co-Director, Nanomaterials Core Facility, 2008 - 2017
- Professor, Department of Pharmaceutical Sciences, College of Pharmacy, University of Nebraska Medical Center, Omaha, NE, 2010 - 2012
- Associate Professor, Department of Pharmaceutical Sciences, College of Pharmacy, University of Nebraska Medical Center, Omaha, NE, 2007 - 2010

- Member of Fred and Pamela Buffet Cancer Center, University of Nebraska Medical Center, 2005-
- Research Associate Professor (promoted through P&T guidelines), Department of Pharmaceutical Sciences, College of Pharmacy, University of Nebraska Medical Center, Omaha, NE 2002 - 2007
- UNMC Graduate College Faculty Fellow, 2000 -2021
- Research Assistant Professor, Department of Pharmaceutical Sciences, College of Pharmacy, University of Nebraska Medical Center, Omaha, NE, 1997 - 2002
- Postdoctoral Research Associate, Department of Pharmaceutical Sciences, College of Pharmacy, University of Nebraska Medical Center, Omaha, NE, 1995 - 1997
- Research Fellow, Department of Polymer Sciences, Faculty of Chemistry, MV Lomonosov Moscow State University, Moscow, Russia, 1989 -1995
- Research Fellow, A.N. Nesmeyanov Institute of Elementoorganic Compounds, Russian Academy of Sciences, 1985 - 1989

HONORS AND AWARDS

2020 Elected Fellow, Controlled Release Society

2016 UNMC "Most Promising New Invention" Award

2015 Elected Fellow, American Institute for Medical and Biological Engineering (AIMBE)

2014 University of Nebraska Medical Center Scientist Laureate

2011 University of Nebraska Medical Center Distinguished Scientist

2008 University of Nebraska Medical Center Distinguished Young Scientist

2005 University of Nebraska Medical Center Chancellor Silver "U" Award

1998 Award for the work "Vesicles from block ionomer and surfactant complexes" presented at I-st International Conference on Supramolecular Science and Technology, Zakopane, Poland

1976-1979 State Fellowship of the USSR Trade Unions, MV Lomonosov Moscow State University, Moscow, Russia

SERVICE - SCIENCE ADVOCACY, EDITORIAL DUTIES AND REVIEW PANELS

Academia Advising

- Member, External Advisory Board, National Institutes of Health Center for Biomedical Research Excellence (CoBRE) "South Carolina Bioengineering Center of Regeneration and Formation of Tissues (SC BioCRAFT), 2019 - present
- Member, External Advisory Board, National Institutes of Health Center for Biomedical Research Excellence (CoBRE) "Center for Diagnostics and Therapeutic Strategies in Pancreatic Cancer", 2016 - present

- Member, External Advisory Committee, USD Neuroscience, Nanotechnology and Networks Program (USD-3N), NSF Research Traineeship program, 2016 - present
- Member, National NAIP (National Association of IDeA Principal Investigators) Committee, 2012-2016, 2018 - 2021
- Member, International Scientific Board, Kazan State Medical University (providing strategic advice on the University scientific and educational development to the Rector), 2016 - present.
- Site visit of the NIH/NCI review group for Hunstman Cancer Institute, Utah, October 2014

Grants review

- Member, Ad Hoc NIH, Cancer Nanotechnology Study Section (ZRG1 IMST-M(55)), 2020
- Member, Ad Hoc NIH, Special Emphasis Panel Study Section (ZRG1 BST-R(02)), 2020
- Member, Ad Hoc NIH, SBIR: Biomaterials, Delivery, and Nanotechnology Study Section (ZRG1 BST-R(10) SBIR), 2020
- Member, Ad Hoc NIH, Pediatric Formulations Special Emphasis Panel Study Section (ZRG1ETTN-G(50)R), 2019
- Member, Ad Hoc NIH, SBIR: Biomaterials, Delivery, and Nanotechnology Study Section (ZRG1 BST-R(10) SBIR), 2019
- Member, Department of Defense, Breast Cancer Research Program, Nanotechnology-2 Panel, 2019
- Member, Review Panel for Networks of Centers of Excellence of Canada, 2018
- Member, Ad Hoc NIH, Special Emphasis Panel Study Section (ZGM1 RCB-3(C1)), 2018
- Member, Ad Hoc NIH, Special Emphasis Panel Study Section (ZRG1 BST-H(02)), 2018
- Member, Department of Defense, Breast Cancer Research Program, Nanotechnology-2 Panel, 2017
- Member, NIH/NIGMS Initiative Study Section “Maximizing Investigators Research Award (MIRA) (ZRG1 CB-M (50)), 2017
- Standing Member, NIH Biomaterials and Biointerfaces Study Section (BMBI), 2010 - 2016
- Member, Ad-Hoc NIH Study Section “Developmental Therapeutics”, 2009
- Member, Ad-Hoc NIH Study Section “Nanotechnology” (NANO), 2008-2009
- Member, Ad Hoc NIH, Special Study Section ZRG1 BST-M (58), 2009.
- Member, Ad Hoc NIH, Special Study Section Oncology-2 Translational Clinical IRG (ZRG1 OTC-K), 2009.
- Reviewer to Nebraska Research Initiative (NRI) grant panel, 2008
- Member, Ad-Hoc NIH/ NCI panel ZCA1 GRB-I (M1) (SPORE in Lung, Head and Neck, Lymphoma, and Brain Cancers), 2007

- Member, Ad-Hoc NIH Special Emphasis Panel Study Section “Therapeutics Delivery for Neurodegenerative Diseases” (ZRG1 GGG-S 52 R), 2007
- Reviewer, NSF, Division of Material Research, Polymer Program, 2006, 2007, 2017
- Member, Ad Hoc NIH Study Section “Gene and Drug Delivery Systems”, 2006
- Member, Ad Hoc NSF, SBIR/STTR Phase I: Drug Delivery Panel, 2006
- Member, Ad Hoc NSF, Nanoscale Modeling and Simulation Panel, Directorate of Engineering 2000-2004.
- Reviewer to CRDF (U.S. Civilian Research and Development Foundation), NSF, 2005.

Service to the Scientific Journals

- Editor-in-Chief, “Nanomedicine: Nanotechnology, Biology and Medicine”, 2016 - present
- Member of Editorial Board, “OpenNano”, Elsevier, 2016 - 2019
- Guest Editor, “Pharmaceutical Research”, Theme issue “Multifunctional Polymeric Carriers for Gene and Drug Delivery”, 2010, Vol. 27 (11)
- Guest Editor, “Journal of Controlled Release”, Special issue “Eighth International Nanomedicine and Drug Delivery Symposium”, 2011, Vol. 153 (1)
- Journal Reviewer to Langmuir, Macromolecules, Journal of Physical Chemistry, Pharmaceutical Research, Biomacromolecules, Journal Controlled Release, Nanomedicine, Future Medicinal Chemistry, Journal of Polymer Science, ACS Nano, Molecular Pharmaceutics

Conferences

- Co-organizer, 4th Annual Biopharmaceutical Research and Development Symposium, September 7-8, 2017
- Co-Chair, 2nd Annual Biopharmaceutical Research and Development Symposium, April 7-8, 2015
- Co-organizer, UNMC Center for Drug Delivery and Nanomedicine workshop, November 2014
- Member of Organizing Committee, Ninth International Nanomedicine and Drug Delivery Symposium (NanoDDS'11), Salt Lake City, Utah, October 15-16, 2011.
- Co-Chair, Eighth International Nanomedicine and Drug Delivery Symposium (NanoDDS'10), Omaha, October 3-5, 2010.
- Co-organizer, Special Course in Nanopharmacology and Nanomedicine, University of Nebraska Medical Center, Omaha, NE, Jun. 4-5, 2008
- Co-organizer, USA - Japan Mini-Symposium on Materials Medicine and Nanopharmacology, University of Nebraska Medical Center, Omaha, NE, March 25, 2008
- Member of Organizing Committee of the Fourth International Nanomedicine and Drug Delivery Symposium (NanoDDS'06), Omaha, October 8-10, 2006.
- Co-Organizer, US-Japan Minisymposium on NanoMedicine and Drug Delivery, Omaha, NE, 2003.

Conference sessions chaired or co-chaired:

- Virtual Carolina Nanoformulation Workshop & Nanomedicine Drug Delivery Symposium, September 14-16, 2020.
- International Conference "Biocatalysis -2019: Fundamentals and Applications", June 24-28, 2019, Saint Petersburg, Russia.
- Gordon Research Conference "Cancer Nanotechnology", June 18-23, 2017, Mount Snow, VT.
- "END2CANCER: Emerging Nanotechnology and Drug Delivery Applications for Cancer", December 14-15, 2017, Oklahoma City, OK.
- Controlled Release Society Annual Meeting, July 2016, Seattle, WA.
- 14th International Nanomedicine and Drug Delivery Symposium (NanoDDS'16), September 2016, John Hopkins University, Baltimore, MD.
- 13th International Nanomedicine and Drug Delivery Symposium (NanoDDS'15), September 2015, Seattle, WA.
- 12th International Nanomedicine and Drug Delivery Symposium (NanoDDS'14), October 2014, Chapel Hill, NC.
- 11th International Nanomedicine and Drug Delivery Symposium (NanoDDS'13), October 2013, La Jolla, CA.
- 10th International Frontiers in Biomedical Polymers Symposium, June 3-5, 2013, Vancouver, Canada
- 10th International Nanomedicine and Drug Delivery Symposium (NanoDDS'12), December 2012, Atlantic City, NJ.
- 3rd International Conference on "Biomaterials and Bionanomaterials: Recent Problems and Safety Issues" (Bionanotox 2012), May 2012, Heraklion, Crete-Greece.
- 9th International Nanomedicine and Drug Delivery Symposium (NanoDDS'11), October 2011, Salt Lake City, UT.
- 2nd International Scientific School "Nanomaterials and Nanotechnologies in Living Systems", September 2011, Moscow Region, Russia.
- 2nd International Conference on "Biomaterials and Bionanomaterials: Recent Problems and Safety Issues" (Bionanotox 2011), May 2011, Heraklion, Crete-Greece.
- 8th International Nanomedicine and Drug Delivery Symposium (NanoDDS'10), October 2010, Omaha, NE.
- 1st International Conference on "Biomaterials and Bionanomaterials: Recent Problems and Safety Issues" (Bionanotox 2010), May 2010, Heraklion, Crete-Greece.
- 238th ACS National Meeting, Nanoscience in Polymer Chemistry, August 2009, Washington, DC.
- 1st International Scientific School "Nanomaterials and Nanotechnologies in Living Systems" (NANO 2009), June 2009, Moscow Region, Russia.
- MRS International Materials Research Conference, June 2008, Chongqing, China.
- ACS workshop "Polymers in Medicine and Biology", June 2007, Sonoma Valley, CA.

Service to University of Nebraska Medical Center

- Executive Committee, College of Pharmacy, 2019 - 2021
- Curriculum Committee, College of Pharmacy, 2019 - 2021
- UNMC Research Resources Board, 2015, 2019 -2021
- Promotion and Tenure Committee, College of Pharmacy, 2018 - 2021
- Member, Search Committee for faculty position in Drug Discovery/Target Validation, College of Pharmacy, 2018
- Member, Search Committee for UNMC Research Resources Director, 2017
- Chair, Search Committee for faculty positions in Nanomedicine, College of Pharmacy, 2014
- Member, Faculty Development Committee, 2014 - 2018
- Member. Academic Performance Committee, College of Pharmacy, 2012 - 2019
- Member, Search Committee for Pharmaceutical Sciences Department Chair, 2012
- Member, Search Committee for Nanomedicine/CDDN faculty position, College of Pharmacy, 2012
- Co-Chair, Search Committee for Pharmaceutical Sciences Department Chair, 2011
- Member, Search Committee for Nanomedicine/Nanotoxicology faculty position, Department of Pharmacology and Neuroscience, College of Medicine, 2010
- Member, Nanomedicine faculty Search Committee, College of Pharmacy, 2008
- Member, Safety committee, College of Pharmacy, 2008 - present
- Member, UNMC Monoclonal Antibody and Biomolecular Interaction Core Facility Advisory Committee, 2010 - 2012
- Member, UNMC Electron Microscopy Core Facility Committee, 2009 - present
- Member, UNMC Advanced Microscopy Core Facility advisory committee, 2008 - present
- Member, UNMC Nanoimaging Core Facility advisory committee, 2008 - present
- Member, UNMC Small Animal MRI Core advisory committee, 2014 - present
- Cancer Genes and Molecular Regulation Program (CGMRP) Committee, Eppley Cancer Center, 2007 - 2012
- Member, Committee to revise the College of Pharmacy Promotion and Tenure Guidelines, 2007

Professional societies

- American Chemical Society, since 1996
- Controlled Release Society, since 2003
- Material Research Society, 2008 - 2010
- President, RASA Russian-American Science Association, 2020-present
- Member, Coordinating council, RASA Russian-American Science Association, 2018-present
- Russian-American Science Association (RASA-USA, 2016-present, President (elected) 2020 - present, 2021 - Honorary member
- American Association of Pharmaceutical Scientists, since 1996

RESEARCH INTERESRS

My research interests are at the interfaces of polymer chemistry, life sciences and medicine. Particular emphasis is placed on **design of self-assembling polymer materials and applications of these materials in medicine**. The laboratory is very active in developing novel classes of environmentally and chemical-stimuli responsive nanoparticles and gels and conducts fundamental studies on structure and transitions in these materials. Examples of biomedical application of such materials include polymer therapeutics and targeted drug delivery in cancer and infectious diseases.

GRANT/CONTRACT SUPPORT

- NEBRASKA CENTER FOR NANOMEDICINE, NIH COBRE P30GM127200, June 2018 to May 2023, \$ 5,662,500 (\$ 3,750,000), T.K. Bronich (PI until relocation to NEU)
- TARGETED CORE SHELL NANOGELS FOR TRIPLE NEGATIVE BREAST CANCER, NIH, 1U01CA198910-01, August 2015 - July 2021, MPI- A. Kabanov (UNC), T. Bronich (UNMC), R. Liu (UNC)
- NANOART MANUFACTURE, DELIVERY AND PHARMACOKINETICS FOR DRUG ABUSERS, NIH, 2 P01 DA028555-01A1, June 2015 to April 2021, H. Gendelman (PI), T.K. Bronich (Project 1, co-PI)
- STEPHYLOCOCCAL BIOFILM AND DISEASE, NIH, 2PO1AI083211-11, July 2019 to June 2024, K. Bayles (PI), T. Kielian (Project 4 - PI), T. Bronich (Project 4 -CI)
- TUNABLE SYNTHETIC POLYMERIC SCAVENGERS FOR TOXIC XENOBIOTICS, Russian Science Foundation, \$300,000 20-63-46034, September 2020 - December 2022, A. Kabanov (PI), T. Bronich (CI)
- DEVELOPMENT OF A NEW NANOMEDICINE STRATEGY FOR NEUROBLASTOMA, Buffett Cancer Center and the Pediatric Cancer Research Center, UNMC, February 2019 to January 2020, \$ 100,000, MPI - J Solheim, T. Bronich, D. Coulter
- TARGETING CBL/CBLB--DEPENDENT IMMUNE SUPPRESSION TO ENHANCE CAR-T CELL-BASED IMMUNOTHERAPY OF CHILDHOOD SARCOMA AND NEUROBLASTOMA TUMORS, Pediatric Cancer Research Center, UNMC, November 2017 to October 2019, \$ 200,000, H Band (PI), J Solheim (CI), T. Bronich (CI)
- NEBRASKA CENTER FOR NANOMEDICINE, NIH COBRE 5P20GM103480, September 2008 to June 2019, \$ 11,244,059 (\$ 7,500,000), T.K. Bronich (PI)
- DEVELOPMENT OF CCL21 NANOMEDICINE IN COMBINATION WITH AN IMMUNE CHECKPOINT INHIBITOR FOR PEDIATRIC CANCER TREATMENT, Pediatric Cancer Research Center, UNMC, January 2017 to A December 2017, \$ 100,000, J Solheim (PI), T. Bronich (CI)
- INTEGRATED IMMUNE, BIOMATERIAL AND STEM CELL PLATFORM FOR NEUROPROTECTION AND NEUROGENERATION DESIGNED TO IMPROVE OUTCOMES FOR BATTLEFIELD INJURIES (INNS), DoD, August 2011 to August 2015, UNMC subcontract \$ 282,378 (\$ 190,796), T.K. Bronich (PI)

- HIGHLY STABLE HUMAN PLASMA BUTYRYLCHOLINESTERASE FOR INTRAMUSCULAR DELIVERY, DoD, HDTRA1-13-C-0037, September 2013 to September 2015, UNMC subcontract \$ 369,624 (\$243,976), V. Gilman (PI, Vivonics), T. Bronich (PI, UNMC)
- HIGH CAPACITY NANOCARRIERS FOR CANCER CHEMOTHERAPEUTICS, NIH, 1U01 CA151806-01, September 2010 to August 2015, A. Kabanov (PI), T. Bronich (CI)
- MECHANISM-BASED ENHANCED DELIVERY OF DRUG-LOADED TARGETED NANOPARTICLES FOR BREAST CANCER THERAPY, DoD, W81XWH-11-1-0167 January 2011 to January 2014, \$369,825 (\$269,930), T. Bronich (PI)
- SYNTHETIC NANOVACCINES AGAINST RESPIRATORY PATHOGENS (SYNARP), DoD, July 2009 to July 2014, \$ 3,394,000 (\$ 2,913, 395), T.K. Bronich (PI), S. Hinrichs, S. Mallapragada, B. Narasimhan, and M.J. Wannemuehler (CIs)
- TARGETED NANOVACCINES AGAINST RESPIRATORY PATHOGENS (TANARP), DoD, September 2010 to August 2014, \$ 3,394,000 (\$ 2,913, 395), S. Mallapragada (PI), T.K. Bronich (Co-PI), S. Hinrichs, B. Narasimhan, and M.J. Wannemuehler (CIs)
- CROSS-LINKED POLYMER MICELLES IN CANCER THERAPY, NIH, R01 CA116590-01 July 2006 to June 2012, \$1,304,625 (\$ 887,500), T. Bronich (PI)
- ANTI-VIRAL PEPTIDE NANOCOMPLEXES (APN) FOR TREATMENT OF HIV/HCV CO-INFECTION, COBRE project, July 2011 to June 2013, \$ 150,000. L. Poluektova (PI), T. Bronich (Co-PI)
- NANO-STRUCTURED SPATIOTEMPORALLY CONTROLLED DELIVERY SYSTEM THAT PROMOTES FUNCTIONAL TISSUE REGENERATION, DoD, W81XWH-11-C-0065, April 2011 to September 2011, UNMC subcontract \$ 44,500, V. Gilman (PI, InfoScitech), T. Bronich (PI, UNMC)
- NON-INVASIVE NANODIAGNOSTICS OF CANCER (NINOC), DoD, April 2007 to October 2009, \$ 1,796,000 (\$ 1,525,068) A. Kabanov (PI) T. Bronich, S. Batra, M. Boska, S. Vinogradov (CIs)
- InnovaForm Technologies, LLC, Philadelphia, PA, Nebraska research component, November 2005 to October 2009, \$700,000 (UNMC Lab. only), A. Kabanov (PI), T. Bronich (CI)
- SELF-ASSEMBLING SYSTEM FOR TARGETED NANODELIVERY OF PROTEINS (STOP), DoD, December 2006 to November 2008, UNMC subcontract \$ 220,000 (\$149,660), V. Gilman (PI, InfoScitech), T. Bronich (PI, UNMC)
- STRUCTURE AND DYNAMICS OF BLOCK IONOMER COMPLEXES, NSF, July 2005 to June 2008, \$ 345,000 (\$ 234, 694), A. Kabanov (PI), T. Bronich (Co-PI).
- NANOPARTICLE-BASED HUMAN PANCREATIC CANCER THERAPY, UNMC Eppley Cancer Center, February 2006 to January 2007, \$ 40,000, S. Batra (PI), T. Bronich, J. Grem, J. Anderson, S. Johansson (Co-PIs).
- STAR POLYMER UNIMOLECULAR MICELLES FOR DRUG DELIVERY (Phase II), NIH 2 R44 EB000551-02A2, July 2003 to June 2005, \$ 750,000 (\$ 393,636), [UNMC subcontract \$ 178,800 (\$146,558)], F. Wang (PI, EIC Laboratories), T. Bronich (PI, UNMC).

- BRANCHED COPOLYMER AS PEPTIDE DRUG DELIVERY SYSTEM (PHASE I SBIR), NIH, September 2005 to August 2006, UNMC subcontract \$ 20,006 (\$16,398), F. Wang (PI, EIC Laboratories), T. Bronich (PI, UNMC).
- DISPERSED CATIONIC NETWORKS (“NANOGELES”) AS CARRIERS FOR DRUG DELIVERY, NSF, January 2000 to December 2001, \$ 100,000 (\$ 68,494) (Phase I), A. Kabanov (PI), T. Bronich (Co-PI).
- NOVEL FORMULATION OF RETINOIC ACID AND BLOCK COPOLYMER, UNMC seed grant, July 1998 to June 1999, \$ 14,500 (\$ 14,500), Tatiana Bronich (PI).
- A STRUCTURE OF A NEW TYPE OF SELF-ASSEMBLED SYSTEMS - POLYELECTROLYTE/SURFACTANT COMPLEXES, awarded by International Science Foundation (ISF) (MAP300), 1995, Victor A. Kasaikin (PI), Tatiana K. Bronich (Co-PI).

PATENTS AND PATENT APPLICATIONS:

- “NANOPARTICLE COMPOSITIONS AND USES THEREOF”, US provisional application 62/730,229, filed 9/12/2018.
- “DRUG DELIVERY COMPOSITIONS AND METHODS”, US Patent # 9,498,533 (November 22, 2016).
- “COMPOSITIONS FOR MODULATED RELEASE OF PROTEINS AND METHODS OF USE THEREOF”, US provisional application 62/350,768, filed 6/16/2016.
- “CROSS-LINKED IONIC CORE MICELLES”, US Patent # 8,415,400 (April 9, 2013)
- “PHARMACEUTICAL COMPOSITIONS FOR DELIVERY OF DRUG COMBINATIONS AND METHODS FOR THE PREPARATION THEREOF”, US provisional application 61/471,492, filed 4/04/2011.
- “POLYMERIC NANO-COMPLEX AND METHOD FOR DELIVERY OF ANTI-VIRAL PEPTIDES”, US provisional application 61/372,721, filed 8/11/2010
- “PESTICIDAL AGGREGATES”, PCT/US2007/087398.
- “PESTICIDE DELIVERY SYSTEM”, PCT/US2007/000559.
- “PESTICIDE DELIVERY SYSTEM”, PCT/US2007/000552.
- “CROSS-LINKED IONIC CORE MICELLES”, US Patent # 7,332,527 (February 19, 2008)
- “POLYELECTROLYTE COMPLEXES AS SORBENTS FOR WASTEWATER TREATMENT”, EP 492188 A2 920701
- “METHOD FOR TREATING WASTEWATER FROM ORGANIC COMPOUNDS”, USSR Patent # 2034788
- “METHOD FOR TREATING WASTEWATER FROM DYE MANUFACTURE”, Russian Patent # 2034794

PUBLICATIONS

a. Articles published in scholarly journals (peer-reviewed):

1. Freidzon YaS, Shibaev VP, Pautov VD, Bronich TK, Shelukhina GD, Kasaikin VA, Plate NA (1981) Intramolecular conformational transition of a coil-globule type in macromolecules of liquid-crystalline polymers. *Doklady Physical*

- Chemistry* 256, 154-157 (Translated from *Dokl Akad Nauk SSSR* 1981, 256(6), 1435-1438).
2. Izumrudov VA, Bronich TK, Novikova MB, Zezin AB, Kabanov VA (1982) Substitution reactions in ternary systems of macromolecules. *Polymer Science USSR* 24(2), 367-378. (Translated from *Vysokomol Soedin, Ser. A* 1982, 24(2), 339-348).
 3. Bronich TK (1981) Substitution reactions in multicomponent polyelectrolyte systems. *VINITI (in Russian)* 575-82, 79-83.
 4. Izumrudov VA, Bronich TK, Zezin AB, Kabanov VA (1985) The kinetics and mechanism of macromolecular substitution in solutions of polyelectrolytes. *Doklady Physical Chemistry* 278, 801-804. (Translated from *Dokl Akad Nauk SSSR* 1984, 278(2), 404-408).
 5. Izumrudov VA, Bronich TK, Zezin AB, and Kabanov VA (1985) The kinetics and mechanism of intermacromolecular reactions in polyelectrolyte solutions. *J. Polym. Sci., Polym. Lett. Ed.* 23(8), 439-444.
 6. Kabanov VA, Zezin AB, Izumrudov VA, Bronich TK, Bakeev KN (1985) Cooperative interpolyelectrolyte reactions. *Makromol. Chem., Suppl.* 13, 137-155.
 7. Listova OV, Izumrudov VA, Bronich TK, Kabanov NM, Amfiteatrova TA, Zezin AB, Kabanov VA (1986) Formation of reversible gels in ternary polyelectrolyte systems. *Vysokomol Soedin, Ser. B (in Russian)* 28(10), 724-725.
 8. Izumrudov VA, Bronich TK, Saburova OS, Zezin AB, and Kabanov VA (1986) Essential effect of the nature of low-molecular-weight counterion on the direction of the interpolyelectrolyte reaction. *Vysokomol Soedin, Ser. B (in Russian)* 28(10), 725-726.
 9. Izumrudov VA, Bronich TK, Zezin AB, Kabanov VA (1987) Specific features of complex interchange reaction between polyelectrolytes. *Polymer Science USSR* 29(6), 1357-1364. (Translated from *Vysokomol Soedin, Ser. A* 1987, 29(6), 1224-1230).
 10. Listova OV, Izumrudov VA, Bronich TK, Amfiteatrova TA, Kabanov NM, Zezin AB (1987) Formation, structure, and properties of gels: products of reaction between polyelectrolytes. *Doklady Physical Chemistry* 295, 416-419. (Translated from *Dokl Akad Nauk SSSR* 1987, 295(2), 416-419).
 11. Bronich T, Grinberg V, Leontyev A, Tolstoguzov V (1988) Composition of sol-fraction of 11S globulin from broad beans below gelation threshold by the velocity sedimentation data. *VINITI, Moscow*.
 12. Izumrudov VA, Bronich TK, Saburova OS, Zezin AB, Kabanov VA (1988) The influence of chain length of a competitive polyanion and nature of monovalent counterions on the direction of the substitution reaction of polyelectrolyte complexes. *Makromol Chem, Rapid Commun.* 9(1), 7-12.
 13. Izumrudov VA, Bronich TK, Saburova OS, Zezin AB, Kabanov VA (1988) Degree of polymerization of a polyion and nature of the low-molecular-weight counterion as factors which determine the direction of a reaction between polyelectrolytes. *Doklady Physical Chemistry* 301, 645-649. (Translated from *Dokl Akad Nauk SSSR* 1988,301(3), 634-638).

14. Izumrudov VA, Bronich TK, Zezin AB, Kabanov VA (1989) Effect of the length of the N-alkyl substituent in the poly(4-vinylpyridinium cation) on the stability of polyelectrolyte complexes. *Vysokomol Soedi., Ser. B (in Russian)* 31(5), 326-327.
15. Kabanov VA, Zezin AB, Izumrudov VA, Bronich TK, Kabanov NM, Listova OV, Structure formation and gelation phenomena in solutions of ternary interpolyelectrolyte complexes. (1990) *Makromol Chem, Macromol Symp.* 39, 155-169.
16. Grinberg VYa, Grinberg NV, Bikbov TM, Bronich TK, Mashkevich AYa (1992) Thermotropic gelation of food proteins. *Food Hydrocolloids* 6(1), 69-96.
17. Lysenko EA, Bronich TK, Kasaikin VA, Zezin AB, Kabanov VA (1994) Factors influencing the competition between polymethacrylate anions and anionic surfactants for binding to dodecylpyridinium cations. *Polymer Science* 36(2), 175-178.
18. Kabanov AV, Bronich TK, Kabanov VA, Yu K, Eisenberg A. (1996) Soluble stoichiometric complexes from poly(N-ethyl-4-vinylpyridinium) cations and poly(ethylene oxide)-block-poly(methacrylate) anions. *Macromolecules* 29, 6797-6802.
19. Bronich TK, Kabanov AV, Kabanov VA, Yu, K, Eisenberg A. (1997) Soluble complexes from poly(ethylene oxide)-block-polymethacrylate anions and N-alkylpyridinium cations. *Macromolecules* 30, 3519-3525.
20. Lysenko EA, Bronich TK, Eisenberg A, Kabanov VA, Kabanov AV (1998) Block ionomer complexes from polystyrene-block-polyacrylate anions and N-cetylpyridinium cations. *Macromolecules* 31, 4511-4515.
21. Lysenko EA, Bronich TK, Eisenberg A, Kabanov VA, Kabanov AV (1998) Solution behavior and self-assembly of complexes from poly(α -methylstyrene)-block-poly(N-ethyl-4-vinylpyridinium) cations and aerosol OT anions. *Macromolecules* 31, 4516-4519.
22. Kabanov A, Bronich TK, Kabanov VA, Yu K, Eisenberg A (1998) Spontaneous formation of vesicles from complexes of block ionomers and surfactants. *J Am Chem Soc* 120, 9941-9942.
23. Vinogradov SV, Bronich TK, Kabanov AV (1998) Self-assembly of polyamine-poly(ethylene glycol) copolymers with phosphorothioate oligonucleotides. *Bioconjugate Chemistry* 9, 805-812.
24. Bronich TK, Cherry T, Vinogradov SV, Eisenberg A, Kabanov VA, Kabanov AV (1998) Self-assembly in mixtures of poly(ethylene oxide)-block-polyethyleneimine and alkyl sulfate anions. *Langmuir* 14, 6101-6106.
25. Alakhov V, Klinsky E, Li S, Pietrzynski G, Venne A, Batrakova E, Bronich T, Kabanov A (1999) Block copolymer-based formulation of doxorubicin. From cell screen to clinical trials. *Colloids and Surfaces B: Biointerfaces* 16, 113-134.
26. Bronich TK, Nehls A, Eisenberg A, Kabanov VA, Kabanov AV (1999) Novel drug delivery systems based on the complexes of block ionomers and surfactants of opposite charge. *Colloids and Surfaces B: Biointerfaces* 16, 243-252.

27. Bronich TK, Popov AM, Eisenberg A, Kabanov VA, Kabanov AV (2000) Effects of block length and structure of surfactant on self-assembly and solution behavior of block ionomer complexes. *Langmuir* 16, 481-489.
28. Nguyen H-K, Lemieux P, Vinogradov S, Gebhart CL, Guérin N, Paradis G, Bronich T, Alakhov VYu, Kabanov AV (2000) Evaluation of polyether-polyethyleneimine graft copolymers as gene transfer agents. *Gene Therapy* 7, 126-138.
29. Bronich TK, Solomatin SV, Yaroslavov AA, Eisenberg A, Kabanov VA, Kabanov AV (2000) Steric stabilization of negatively charged liposomes by cationic graft copolymer, *Langmuir* 16, 4877-4881.
30. Bronich TK, Nguyen H.-K, Eisenberg A, Kabanov AV (2000) Recognition of DNA topology in reactions between plasmid DNA and cationic copolymers. *J Am Chem Soc* 122, 8339-8343.
31. Lemieux P, Vinogradov SV, Gebhart CL, Guérin N, Paradis G, Nguyen HK, Ochiatti B, Suzdaltseva YG, Bartakova EV, Bronich TK, St-Pierre Y, Alakhov VY, Kabanov AV (2000) Block and graft copolymers and Nanogel™ copolymer networks for DNA delivery into cell. *J Drug Targeting* 8, 91-105.
32. Bronich T, Kabanov AV, Marky LA (2001) A thermodynamic characterization of the interaction of a cationic copolymer with DNA. *J. Phys. Chem., B* 105, 6042-6050.
33. Bronich TK, Vinogradov SV, Kabanov AV (2001) Interaction of nanosized copolymer networks with oppositely charged amphiphilic molecules. *Nano Letters*, 1, 535-540.
34. Vinogradov SV, Bronich TK, Kabanov AV (2002) Nanosized cationic hydrogels for drug delivery: preparation, properties and interactions with cells. *Adv. Drug Deliv. Rev.* 54, 135-147.
35. Lysenko EA, Bronich TK, Slonkina, EV, Eisenberg A, Kabanov VA, Kabanov AV (2002) Block ionomer complexes with polystyrene core-forming block in selective solvents of various polarity: 1. Solution behavior and self-assembly in aqueous media. *Macromolecules*, 35 (16), 6344-6350.
36. Lysenko EA, Bronich TK, Slonkina, EV, Eisenberg A, Kabanov VA, Kabanov AV (2002) Block ionomer complexes with polystyrene core-forming block in selective solvents of various polarity: 2. Solution behavior and self-assembly in nonpolar solvents. *Macromolecules*, 35 (16), 6351-6361.
37. Bronich TK, Ouyang M, Eisenberg A, Kabanov VA, Szoka FC, Kabanov AV (2002) Synthesis of vesicles on polymer template. *J. Am. Chem. Soc.*, 124, 11872-11873.
38. Solomatin SV, Bronich TK, Bargar TW, Kabanov VA, Eisenberg A, Kabanov AV (2003) Environmentally responsive nanoparticles from block ionomer complexes: Effects of pH and ionic strength. *Langmuir*, 19, 8069-8076.
39. Oh KT, Bronich TK, Kabanov AV (2004) Micellar formulations for drug delivery based on mixtures of hydrophobic and hydrophilic Pluronic block copolymers. *J Control Release*, 94, 411-422.
40. Solomatin SV, Bronich TK, Eisenberg A, Kabanov VA, Kabanov AV (2004) Colloidal stability of aqueous dispersions of block ionomer complexes: effects of temperature and salt, *Langmuir*, 20(6), 2066 - 2068.

41. Chelushkin PS, Lysenko EA, Bronich TK, Eisenberg A, Kabanov AV, Kabanov VA (2004) Interpolyelectrolyte complexes with a micellar structure. *Doklady Physical Chemistry*, 395 (1), 72-75.
42. Chelushkin PS, Lysenko EA, Bronich TK, Eisenberg A, Kabanov AV, Kabanov VA (2004) Interpolyelectrolyte complexes of cationic amphiphilic diblock copolymer and oppositely charged linear polyanion. *Polymer Science, Ser. A*, Vol. 46 (5), 485 - 490.
43. Lysenko, E.A., Chelushkin, P.S., Bronich, T.K., Eisenberg, A., Kabanov, V.A. Kabanov, A.V. (2004) Self-assembly of multilayer polyelectrolyte complexes using block ionomer micelles as nucleating particles, *J. Phys. Chem. B*, 108 (33), 12353-12359.
44. Wang F, Bronich TK, Kabanov AV, Rauh RD, Roovers J. (2005) Synthesis and evaluation of a star amphiphilic block copolymer from poly(ϵ -caprolactone) and poly(ethylene glycol) as potential drug delivery carrier. *Bioconjugate Chem.*, 16, 397 - 405.
45. Solomatin SV, Bronich, TK, Kabanov VA, Eisenberg A, Kabanov AV (2005) Fluorescence anisotropy study of aqueous dispersions of block ionomer complexes. *J. Phys. Chem. B*, 109(10), 4303-4308.
46. Bronich TK, Keifer PA, Shlyachtenko LS, Kabanov AV. (2005) Polymer micelle with cross-linked ionic core. *J. Am. Chem. Soc.*, 127, 8236-8237.
47. Bontha S, Kabanov AV, Bronich TK. (2006) Polymer micelles with cross-linked ionic cores for delivery of anticancer drugs. *J. Contr. Release*, 114(2), 163-174.
48. Bronich TK, Bontha S, Shlyachtenko LS, L Bromberg L, TA Hatton TA, Kabanov AV. (2006) Template-assisted synthesis of nanogels from Pluronic-modified poly(acrylic acid). *J. Drug Targeting*, 14(6), 357-366.
49. Oh K, Bronich TK, Bromberg L, Hatton TA, Kabanov AV. (2006) Block ionomer complexes as prospective nanocontainers for drug delivery. *J. Control. Release*, 115(1), 9-17.
50. Oh K, Bronich TK, Kabanov VA, Kabanov AV (2007) Block polyelectrolyte networks from poly(acrylic acid) and poly(ethylene oxide): sorption and release of cytochrome C. *Biomacromolecules*, 8, 490-497.
51. Solomatin SV, Bronich TK, Eisenberg A, Kabanov VA, Kabanov AV. (2007) Nanomaterials from ionic block copolymers and single-, double- and triple-tail surfactants, *Langmuir*, 23, 2838-2842.
52. Chelushkin PS, Lysenko EA, Bronich TK, Eisenberg A, Kabanov VA, Kabanov AV. (2007) Polyion complex nanomaterials from block polyelectrolyte micelles and linear polyelectrolytes of opposite charge: 1. Solution behavior. *J. Phys Chem B.*, 111 (29), 8419-8425.
53. Batrakova EV, Li S, Reynolds AD, Mosley R, Bronich T.K, Kabanov AV, Gendelman, HE. (2007) A macrophage-nanozyme delivery system for Parkinson's disease. *Bioconjugate Chem.*, 18(5), 1498-506. PMID: PMC2677172
54. Liu J, Lin J, Johnson TV, Bronich TV, Caplan S, Persidsky Y, Gendelman HE, Kipnis J. (2007) T cell-independent mechanism underlying Copolymer-1-mediated neuroprotection. *Eur. J Immunology*, 37(11), 3143-2154.

55. Wang F, Bronich TK, Kabanov AV, Rauh RD, Roovers J. (2008) Synthesis and characterization of star poly(epsilon-caprolactone)-b-poly(ethylene glycol) and poly(L-lactide)-b-poly(ethylene glycol) copolymers: evaluation as drug delivery carriers. *Bioconjugate Chem.* 19(7):1423-1429. PMID:PMC2711207
56. Chelushkin PS, Lysenko EA, Bronich TK, Eisenberg A, Kabanov VA, Kabanov AV. (2008) Polyion complex nanomaterials from block polyelectrolyte micelles and linear polyelectrolytes of opposite charge: 2. Dynamic properties. *J. Phys Chem B.*, 112 (26), 7732-7738.
57. Li Y, Bronich TK, Chelushkin PS, Kabanov AV (2008) Dynamic properties of block ionomer complexes with polyion complex cores. *Macromolecules*, 41(15), 5863-5868.
58. Oishi M, Sumitani S, Bronich TK, Kabanov AV, Boska MD, Nagasaki Y. (2009) Novel ¹⁹FMRSLI nanoprobe based on pH-responsive PEGylated nanogel: pH-dependent ¹⁹F magnetic resonance studies. *Chemistry Letters*, 38 (2) 128-129.
59. Lysenko EA, Trusov AN, Chelushkin PS, Bronich TK, Kabanov AV, Zezin AB. (2009) Mixed micelles on the base of cationic and anionic amphiphilic diblock copolymer with the same hydrophobic block. *Polymer Science, Ser. A*, 51 (5), 1-12.
60. Lysenko EA, Trusov AN, Chelushkin PS, Bronich TK, Kabanov AV, Zezin AB. (2009) Mixed micelles based of cationic and anionic amphiphilic diblock copolymers containing identical hydrophobic blocks. *Polymer Science, Ser. A*, 51 (6), 606-615.
61. Kim JO, Nukolova NV, Oberoi HS, Kabanov AV, Bronich TK. (2009) Block ionomer complex micelles with cross-linked cores for drug delivery. *Polymer Science, Ser. A* 51(6), 708-718. PMID:PMC2994363
62. Kim JO, Kabanov AV, Bronich TK. (2009) Polymer micelles with cross-linked polyanion core for delivery of a cationic drug doxorubicin. *J. Control. Release* 138(3), 197-204. PMID:PMC2728168
63. Sahay G, Kim JO, Kabanov AV, Bronich TK. (2010) The exploitation of differential endocytic pathways in normal and tumor cells in the selective targeting of nanoparticulate chemotherapeutic agents. *Biomaterials* 31, 923-933. PMID:PMC3082844
64. Gaydoss A, Duysen E, Li Y, Gilman V, Kabanov A, Lockridge O, Bronich, T. (2010) Visualization of exogenous delivery of nanoformulated butyrylcholinesterase to the central nervous system. *Chem Biol Interact. C* 187, 295-298. PMID:PMC2998607
65. Kim JO, Sahay G, Kabanov AV, Bronich TK. (2010) Polymeric Micelles with Ionic Cores Containing Biodegradable Cross-Links for Delivery of Chemotherapeutic Agents. *Biomacromolecules* 11(4), 919-926. PMID:PMC2854228
66. Luxenhofer R, Schulz A, Roques C, Li S, Bronich TK, Batrakova EV, Jordan R, Kabanov AV. (2010) Doubly amphiphilic poly(2-oxazoline)s as high-capacity delivery systems for hydrophobic drugs. *Biomaterials* 31(18), 4972-4979. PMID: PMC2884201.
67. Rosenbaugh EG, Roat JW, Gao L, Yang RF, Manickam DS, Yin JX, Schultz HD, Bronich TK, Batrakova EV, Kabanov AV, Zucker IH, Zimmerman MC. (2010) The

- attenuation of central angiotensin II-dependent pressor response and intraneuronal signaling by intracarotid injection of nanoformulated copper/zinc superoxide dismutase. *Biomaterials* 31, 5218-5226. PMID:PMC2860066.
68. Nukolova NV, Yang Z, Kim JO, Kabanov AV, Bronich TK. (2011) Polyelectrolyte Nanogels Decorated with Monoclonal Antibody for Targeted Drug Delivery. *Reactive and Functional Polymers* 71, 315-323. PMID:PMC3077768
69. Bronich TK (2010) Multifunctional polymeric carriers for gene and drug delivery. *Pharmaceutical Research* 27(11), 2257-2259.
70. Nowacek AS, Balkundi S, McMillan J, Roy U, Martinez-Skinner A, Mosly RL, Kamogne G, Kabanov AV, Bronich T, Gendelman HE. (2010) Analyses of nanoformulated antiretroviral drug charge, size, shape and content for uptake, drug release and antiviral activities in human monocyte-derived macrophages. *J Controlled Release* 150(2), 204-211. PMID:PMC3065529
71. Nukolova NV, Oberoi HS, Kabanov AV, Bronich TK. (2011) Folate-decorated nanogels for targeted therapy of ovarian cancer. *Biomaterials* 32(23), 5417-5426. PMID: PMC3255291
72. Oberoi HS, Laquer FC, Marky LA, Kabanov AV, Bronich TK. (2011) Core Cross-Linked Block Ionomer Micelles as pH-Responsive Carriers for cis-Diamminedichloroplatinum(II). *J. Control. Release*, 153 (1), 64-72. PMID:PMC3134139
73. Luxenhofer R, Sahay G, Schulz A, Alakhova D, Bronich TK, Jordan R, Kabanov AV. (2011) Structure-property relationship in cytotoxicity and cell uptake of poly(2-oxazoline) amphiphiles. *J. Control. Release* 153(1), 73-82. PMID:PMC3134160
74. Kabanov AV, Bronich TK. (2011) Eighth International Nanomedicine and Drug Delivery Symposium (NanoDDS'10). *J Control Release* 153(1), 1.
75. Balkundi S, Nowacek AS, Veerubhotla RS, Chen H, Martinez-Skinner A, Roy U, Mosley RL, Kamogne G, Liu X, Kabanov AV, Bronich T, McMillan J, Gendelman HE. (2011) Comparative manufacture and cell-based delivery of antiretroviral nanoformulations. *Int. J Nanomedicine* 6, 3393 - 3404. PMID:PMC3260033
76. Klyachko NL, Manickam DS, Brynskikh AM, Uglanova SV, Li S, Higginbotham SM, Bronich TK, Batrakova EV, Kabanov AV. (2012) Cross-linked antioxidant nanozymes for improved delivery to CNS. *Nanomedicine: Nanotechnology, Biology and Medicine*, 8(1), 119-129. PMID:PMC3255173
77. Kamogne GD, Singh S, Roy U, Liu X, McMillan J, Gorantla S, Balkundi S, Smith N, Alnouti Y, Gautam N, Zhou Y, Poluektova L, Kabanov A, Bronich T, Gendelman HE. (2012) Mononuclear phagocyte intercellular crosstalk facilitates transmission of cell-targeted nanoformulated antiretroviral drugs to human brain endothelial cells. *Int J Nanomedicine*, 7, 2373-2388. PMID:PMC3357981
78. Kamimura M, Kim JO, Kabanov AV, Bronich TK, Nagasaki Y. (2012) Block ionomer complexes of PEG-block-poly(4-vinylbenzylphosphonate) and cationic surfactants as highly stable, pH responsive drug delivery system. *J Control Release* 160, 486-494. PMID:22546682
79. Oberoi HS, Nukolova NV, Laquer FC, Poluektova LP, Huang J, Alnouti Y, Yokohira M, Arnold LL, Kabanov AV, Cohen SM, Bronich TK. (2012) Cisplatin-loaded Core Cross-linked Micelles: Comparative Pharmacokinetics, Antitumor

- Activity and Toxicity in Mice. *Int. J Nanomedicine*, 7, 2557-2571. PMID: PMC3383348
80. Oberoi HS, Nukolova NV, Zhao Y, Cohen SM, Kabanov AV, Bronich TK. (2012) Preparation and in vivo evaluation of dichloro(1,2-diaminocyclohexane)platinum(II) (DACHPt)-loaded core cross-linked polymer micelles. *Chemotherapy Research and Practice*, 2012:905796 PMID: PMC3403332.
81. Han Y, He Z, Schulz A, Bronich TK, Jordan R, Luxenhofer R, Kabanov AV. (2012) Synergistic Combinations of Multiple Chemotherapeutic Agents in High Capacity Poly(2-oxazoline) Micelles. *Mol Pharmaceutics*, 9, 2302-2313. PMID: PMC3534837
82. Manickam DS, Brynskikh AM, Kopanic JL, Sorgen PL, Klyachko NL, Batrakova EV, Bronich TK, Kabanov AV. (2012) Well-defined cross-linked antioxidant nanozymes for treatment of ischemic brain injury. *J Control Release* 162, 636-645. PMID: PMC3597468
83. Zhang J, Mulvenon A, Makarov E, Wagoner J, Knibbe J, Kim JO, Osna N, Bronich TK, Poluektova LY. (2013) Antiviral peptide nanocomplexes as a potential therapeutic modality for HIV/HCV co-infection. *Biomaterials* 34, 3846-3857. PMID: PMC3602242
84. Zhao Y, Alakhova D, Kim JO, Bronich TK, Kabanov AV. (2013) A simple way to enhance Doxil® therapy: Drug release from liposomes at the tumor site by amphiphilic block copolymer. *J Control Release* 168 (1), 61-69. PMID: PMC3661699
85. Desale S, Zhao Y, Kabanov AV, Cohen SM, Bronich TK. (2013) Biodegradable hybrid polymer micelles for combination drug therapy in ovarian cancer. *J Control Release* 171(3), 339-343. PMID: PMC4046853
86. Puligujja P, McMillan J, Kendrick L, Li T, Balkundi S, Smith N, Veerubhotla RS, Edagwa BJ, Kabanov AV, Bronich T, Gendelman HE, Liu XM. (2013) Macrophage folate receptor-targeted antiretroviral therapy facilitates drug entry, retention, antiretroviral activities and biodistribution for reduction of human immunodeficiency virus infections. *Nanomedicine* 9(8):1263-1273. PMID: PMC3779529
87. Kim JO, Ramacamy T, Yong CS, Nukolova NV, Bronich TK, Kabanov AV. (2013) Cross-linked polymeric micelles based on block ionomer complexes. *Mendeleev Commun.* 23, 179-186.
88. Kim JO, Oberoi HS, Desale SS, Kabanov AV, Bronich TK. (2013) Polypeptide nanogels with hydrophobic moieties in the cross-linked ionic cores: Synthesis, characterization and implications for anticancer drug delivery. *J Drug Targeting* 21 (10), 981-993. PMID: PMC4020517
89. Nukolova NV, Oberoi HS, Zhao Y, Chekhonin VP, Kabanov AV, Bronich T. (2013) LHRH-targeted nanogels as delivery system for cisplatin to ovarian cancer. *Mol Pharm.* 10 (10), 3913-3921. PMID: PMC3809768
90. Oberoi HS, Nukolova NV, Kabanov AV, Bronich TK. (2013) Nanocarriers for delivery of platinum anticancer drugs. *Adv Drug Deliv Rev.* 65,1667-1685. PMID: PMC4197009

91. Gutti TL, Knibbe J, Makarov E, Zhang J, Yannam GR, Gorantla S, Sun Y, Mercer DF, Suemizu H, Wisecarver J, Osna N, Bronich T, Poluektova LY. (2014) Human hepatocytes and hemato-lymphoid dual reconstitution in Treosulfan-conditioned uPA-NOG mice. *Am J Pathol.* 184(1), 101-109. PMID: PMC3873481
92. Nel A, Swindells S, Bronich T, Gendelman HE. (2014) Interview: Nanomedicine and the fight against HIV/AIDS. *Nanomedicine (Lond).* 9(2), 193-206. PMID: 24552561
93. Ross KA, Huntimer LM, Vela-Ramirez JE, Adams JR, Carpenter SL, Kohut ML, Bronich T, Webby R, Legge KL, Mallapragada SK, Wannemuehler MJ, Narasimhan B. (2014) Vaccine technologies against avian influenza: current approaches and new directions, *Journal of Biomedical Nanotechnology*, 10(9), 2261-2294. PMID: 25992457
94. Ross KA, Loyd H, Wu W, Huntimer L, Ahmed S, Sambol A, Broderick S, Flickinger Z, Rajan K, Bronich T, Mallapragada S, Wannemuehler MJ, Carpenter S, Narasimhan B. (2014) Hemagglutinin-based polyanhydride nanovaccines against H5N1 influenza elicit protective virus neutralizing titers and cell-mediated immunity. *Int J Nanomedicine* 10: 229-243. PMID: PMC4284014
95. Gendelman HE, Anantharam V, Bronich T, Ghaisas S, Jin H, Kanthasamy AG, Liu X, McMillan J, Mosley RL, Narasimhan B, Mallapragada SK. (2015) Nanoneuromedicines for degenerative, inflammatory, and infectious nervous system diseases. *Nanomedicine: Nanotechnology, Biology, and Medicine*, 11(3): 751-67. PMID: PMC4387001
96. Desale SS, Raja SM, Kim JO, Mohapatra B, Soni KS, Luan H, Williams SH, Bielecki TA, Feng D, Storck M, Band V, Cohen SM, Band H, Bronich TK. (2015) Polypeptide-based nanogels co-encapsulating a synergistic combination of Doxorubicin with 17-AAG show potent anti-tumor activity in ErbB2-driven breast cancer models. *J Controlled Release*, 208: 59-66. PMID: PMC4430376
97. Li T, Gendelman HE, Zhang G, Puligujja P, McMillan JM, Bronich TK, Edagwa B, Liu MX, Boska MD. (2015) Magnetic resonance imaging of folic acid-coated magnetite nanoparticles reflects tissue biodistribution of long-acting antiretroviral therapy. *Int J Nanomedicine* 10: 3779-90. PMID: PMC4461087
98. Seo Y, Schulz A, Han Y, He Z, Bludau H, Wan X, Tong J, Bronich TK, Sokolsky M, Luxenhofer R, Jordan R, Kabanov AV. (2015) Poly(2-oxazoline) block copolymer based formulations of taxanes: effect of copolymer and drug structure, concentration, and environmental factors. *Polymers for Advanced Technologies*, 26 (7): 837-850.
99. Ganesan M, Zhang J, Bronich T, Poluektova L, Tuma D, Kharbanda K, Osna N. (2015) Acetaldehyde accelerates HCV-induced impairment of innate immunity by suppressing methylation reactions in liver cells. *Am J Physiol Gastrointest Liver Physiol.*, 309(7): G566-577. PMID: 26251470
100. Zhang J, Garrison GC, Poluektova LY, Bronich TK, Osna NA. (2015) Liver-targeted antiviral peptide nanocomplexes as potential anti-HCV therapeutics. *Biomaterials*, 70:37-47. PMID: PMC4562313
101. Desale SS, Soni KS, Romanova S, Cohen SM, Bronich TK. (2015) Targeted delivery of platinum-taxane combination therapy in ovarian cancer. *J Controlled Release*, 220(Pt B): 651-659. PMID: PMC4688128

102. Zhang J, Desale SS, Bronich TK. (2015) Polymer-based vehicles for therapeutic peptide delivery. *Therapeutic Delivery*, 6(11), 1279-1296. PMID: 26599420
103. Soni KS, Desale SS, Bronich TK. (2016) Nanogels: an overview of properties, biomedical applications and obstacles to clinical translation *J Control Release*, 240: 109 - 26. PMID: PMC4862943
104. Raja S, Desale SS, Mohapatra B, Luan H, Soni KS, Zhang J, Storck MA, Feng D, Bielecki TA, Band V, Cohen SM, Bronich TK, Band H. (2016) Marked enhancement of lysosomal targeting and efficacy of ErbB2-targeted drug delivery by HSP90 inhibition. *Oncotarget*. 7(9):10522-35. PMID: PMC4891137
105. Ross KA, Adams J, Loyd H, Ahmed S, Sambol A, Broderick S, Rajan K, Kohut M, Bronich T, Wannemuehler MJ, Carpenter S, Mallapragada S, Narasimhan B. (2016) Combination nanovaccine demonstrates synergistic enhancement in efficacy in influenza. *ACS Biomater. Sci. Eng.* 2, 368–374
106. Vishwasrao HM, Master AM, Seo YG, Liu XM, Pothayee N, Zhou Z, Yuan D, Boska MD, Bronich TK, Davis RM, Riffle JS, Sokolsky-Papkov M, Kabanov AV. (2016) Luteinizing hormone releasing hormone-targeted cisplatin-loaded magnetite nanoclusters for simultaneous MR imaging and chemotherapy of ovarian cancer. *Chem. Mater.* 28 (9): 3024–3040.
107. Guo D, Zhou T, Arainga M, Palandri D, Gautam N, Bronich T, Alnouti Y, McMillan J, Edagwa B, Gendelman H. (2017) Creation of a long-acting nanoformulated 2',3'-dideoxy-3'-thiacytidine. *J Acquir Immune Defic Syndr*, 74(3):e75-e83. PMID: PMC5305294
108. Efremenko EN, Lyagin IV, Klyachko NL, Bronich T, Zavyalova NV, Jiang Y, Kabanov AV (2017) A simple and highly effective catalytic nanozyme scavenger for organophosphorus neurotoxins. *J Control Release*. 247:175-181. PMID: 28043864
109. Soni KS, Lei F, Desale SS, Marky LA, Cohen SM, Bronich TK. (2017) Tuning polypeptide-based micellar carrier for efficient combination therapy of ErbB2-positive breast cancer. *J Control Release*. 264:276-287. PMID: 28043864
110. Kevadiya BD, Woldstad C, Ottemann BM, Dash P, Sajja BR, Lamberty B, Morsey B, Kocher K, Dutta R, Bade AN, Liu Y, Callen SE, Fox HS, Byrareddy SN, McMillan JM, Bronich TK, Edagwa BJ, Boska MD, Gendelman HE. (2018) Multimodal theranostic nanoformulations permit magnetic resonance bioimaging of antiretroviral drug particle tissue-cell biodistribution. *Theranostics* 8(1): 256-276. PMID: PMC5743473
111. Jia Z, Wang X, Wei X, Zhao G, Foster KW, Qiu F, Gao Y, Yuan F, Yu F, Thiele GM, Bronich TK, O'Dell JR, Wang D. (2018) Micelle-forming dexamethasone prodrug attenuates nephritis in lupus-prone mice without apparent glucocorticoid side effects. *ACS Nano* 12(8):7663-7681. PMID: PMC6117746
112. Kevadiya BD, Ottemann BM, Thomas MB, Mukadam I, Nigam S, McMillan J, Gorantla S, Bronich TK, Edagwa B, Gendelman HE. Neurotheranostics as personalized medicines. (2018) *Adv Drug Deliv Rev* 148, 252-289. PMID: PMC6486471
113. Soni KS, Thomas D, Caffrey T, Mehla K, Lei F, O'Connell KA, Sagar S, Lele SM, Hollingsworth MA, Radhakrishnan P, Bronich TK. (2019) Polymeric nanogel-

- based treatment regimen for enhanced efficacy and sequential administration of synergistic drug combination in pancreatic cancer. *J Pharmacol Exp Ther* 370(3):894-901. PMID:PMC6807295
114. Lei F, Xi X, Batra SK, Bronich TK. (2019) Combination therapies and drug delivery platforms in combating pancreatic cancer. *J Pharmacol Exp Ther.* 370(3):682-694. PMID:PMC6806650
115. Hu H, Petrosyan A, Osna NA, Liu T, Olou AA, Alakhova DY, Singh PK, Kabanov AV, Faber EA J, Bronich TK. (2019) Pluronic block copolymers enhance the anti-myeloma activity of proteasome inhibitors. *J Control Release* 306:149-164. PMID:PMC6822276
116. Liu T, Romanova S, Wang S, Hyun MA, Zhang C, Cohen SM, Singh RK, Bronich TK. (2019) Alendronate-modified polymeric micelles for the treatment of breast cancer bone metastasis. *Mol Pharm.* 16(7):2872-2883. PMID:PMC6632075
117. Miller H, Magsam A, Tarudji A, Romanova S, Weber L, Gee C, Madsen G, Bronich T, Kievit F. (2019) Evaluating differential nanoparticle accumulation and retention kinetics in a mouse model of traumatic brain injury via Ktrans mapping with MRI. *Sci Rep.* 9 (1), 16099. PMID:PMC6834577
118. Yamada K, Xi X, Kuldeep A, Zhang W, Singh P, Bronich T, Kielian T. (2020) Nanoparticle targeting of monocyte metabolism to treat *Staphylococcus aureus* prosthetic joint infection. *PLoS Pathog.*16(3): e1008354. PMID:PMC7080272
119. Poelaert BJ, Romanova S, Knoche SM, Olson MT, Sliker BH, Smits K, Dickey BL, Moffitt-Holida AEJ, Goetz BT, Khan N, Smith L, Band H, Mohs AM, Coulter DW, Bronich TK, Solheim JC. (2020) Nanoformulation of CCL21 greatly increases its effectiveness as an immunotherapy for neuroblastoma. *J Control Release* 327: 266-283.
120. Schlichte SL, Romanova S, Katsurada K, Kosmacek EA, Bronich TK, Patel KP, Oberley-Deegan RE, Zimmerman MC. (2020) Nanoformulation of the superoxide dismutase mimic, MnTnBuOE-2-PyP⁵⁺, prevents its acute hypotensive response. *Redox Biol.* 36:101610.
121. Wei X, Zhao G, Wang X, Gautam N, Jia Z, Zhao Z, Kong D, Zhang F, Kumar S, Sun Y, Chen N, Wang X, Yang L, Ren R, Thiele GM, Bronich TK, O'Dell JR, Alnouti Y, Wang D. (2020) Head-to-head comparative pharmacokinetic and biodistribution (PK/BD) study of two dexamethasone prodrug nanomedicines on lupus-prone NZB/WF1 mice. *Nanomedicine*, 29, 102266.
122. Bhattarai RS, Kumar V, Romanova S, Bariwal J, Chen H, Deng S , Bhatt VR, Bronich T, Li W, Mahato RI. (2021) Nanoformulation design and therapeutic potential of a novel tubulin inhibitor in pancreatic cancer. *J Control Release*, 329: 585-597.
123. Lei F, Xi X, Rachagani S, Seshacharyulu P, Talmon GA, Ponnusamy MP, Batra SK, Bronich TK. (2021) Nanoscale platform for delivery of active IRINOX to combat pancreatic cancer. *J Control Release*, 330:1229-1243.
124. Lopukhov AV, Yang Z, Haney MJ, Bronich TK, Sokolsky-Papkov M, Batrakova EV, Klyachko NL, Kabanov AV. (2021) Mannosylated cationic copolymers for gene delivery to macrophages. *Macromol Biosci.* 21(4): e2000371.

b. Preprints and conference papers:

1. Kabanov A, Bronich T, Kabanov V, Yu K, Eisenberg A (1997) Vesicles from block ionomer complexes. *Polymer Preprints* 38/2, 648-649.
2. Bronich TK, Nehls A, Kabanov VA, Eisenberg A, Kabanov AV (1998) Novel block ionomer complexes for drug delivery, *Polym Prepr* 39/2, 222-223.
3. Kabanov AV, Bronich TK, Yu K, Eisenberg A, Lysenko EA, Kabanov VA (1998) Block ionomer complexes, *Polym Prepr* 39/2, 388-389.
4. Bronich TK, Nguyen H-K, Eisenberg A, Kabanov A (2000) Recognition of DNA topology in reactions between plasmid DNA and cationic copolymers. *Polym Prepr* 41/1, 1006-1007.
5. Kabanov AV, Bronich TK, Eisenberg A, Kabanov VA (2000) Novel nanocomposite materials based on block ionomer complexes. *Proc Am Chem Soc, Division of Polymeric Materials: Science and Engineering* 82, 303-304.
6. Bronich TK, Ouyang M, Eisenberg A, Kabanov VA, Szoka FC, Kabanov AV (2000) Reactive stabilization of vesicles from cationic surfactant self-assembled on anionic block ionomer template. *Polym Prepr* 41/2, 1645-1646.
7. Bronich T, Kankia BI, Kabanov AV, Marky LA (2000) A thermodynamic investigation of the interaction of polycations with DNA. *Polym Prepr* 41/2, 1611-1612.
8. Bronich TK, Vinogradov SV, Kabanov AV (2001) Interaction of dispersed copolymer networks with oppositely charged amphiphilic molecules. *Polym Prepr* 42/2, 81-82.
9. Solomatin SV, Bronich TK, Kabanov VA, Eisenberg A, Kabanov AV (2001) Block ionomer complexes - novel environmentally responsive materials. *Polym Prepr* 42/2, 107-108.
10. Kabanov AV, Gebhart CL, Bronich TK, Vinogradov SV (2002) Polycations for gene delivery: problems and solutions. *Polym Prepr* 43(2), 669-670
11. Solomatin SV, Bronich, TK, Kabanov VA, Eisenberg A, Kabanov AV (2003) Effect of salt and temperature on aggregation stability of block ionomer complexes. *Polym Prepr* 44(1), 642-643.
12. Bronich TK, Kabanov AV (2004) Novel block ionomer micelles with cross-linked ionic cores. *Polym Prepr* 45(2), 384-385.
13. Solomatin SV, Bronich, TK, Kabanov VA, Eisenberg A, Kabanov AV (2004) Block ionomer complexes produced from combinations of surfactants: particle morphology and surfactant mixing. *Polym Prepr* 45(2), 394-395.
14. Lysenko EA, Chelushkin PS, Bronich TK, Eisenberg A, Kabanov VA, Kabanov AV (2004) Soluble nanoparticles from block ionomer micelles and oppositely charged complexing agents. *Polym Prepr* 45(2), 244-245.
15. Kim JO, Oberoi HS, Bronich TK. (2009) Cross-linked Polymer Micelles with Biodegradable Ionic Cores for Anti-cancer Drug Delivery, *Polym Preprs* 50(2), 372-373.
16. Oberoi HS, Nukolova NV, Bronich TK (2011) Dichloro(1,2-diaminocyclohexane) platinum (II) (DACHPt) loaded polymer micelles with cross-linked core: preparation and characterization., *Polymeric Materials: Science & Engineering*, 104, 559-560.

17. Zhang J, Mulvenon A, Makarov E, Knibbe J, Wagoner J, Osna N, Poluektova L, Bronich TK. (2012) Antiviral Peptide Nanocomplexes as Novel Therapeutic Modality. *Polym Preprs* 53 (2), 463-464.

c. Book chapters:

1. Kabanov AV and Bronich TK (2002) Structure, dispersion stability and dynamics of DNA and polycation complexes. In *Pharmaceutical Prospective of Nucleic Acid-Based Therapeutics* (SW Kim and R Machato, Eds.) Taylor & Francis, London, New York, 164-189.

2. Batrakova, EV, Bronich, TK, Vetro, JA, Kabanov, AV. (2006) Polymer micelles as drug carriers, In *Nanoparticulates as Drug Carriers* (V.P. Torchilin, Ed.), Imperial College Press.

3. Liu X, Bronich T. (2013) Nanoformulations. In *Current laboratory methods in neuroscience research*. (H Xiong, HE Gendelman, Eds.), Springer, New York, 213-222.

4. Desale SS, Zhang J, Bronich TK. (2015) Synthetic polymer-based nanomaterials, In *Nanomaterials in Pharmacology* (Z.-R. Lu, S. Sakuma, Eds.), Springer, 1-26.

Plenary and Invited Lectures at National and International Meetings:

- “Nanotechnology for Radiation Oncology”, Midwest Radiation Oncology Symposium, August 22-23, 2020, Omaha, Nebraska.
- “Polymeric Micelles for Combination Cancer Therapy”, International Symposium on Biomedical Materials for Drug/Gene Delivery, February 7-8, 2020, Salt Lake City, Utah.
- “Amphiphilic Copolymers Mediated Therapeutics in Cancer” International Congress for Young Scientists in Pharmacy “Drug Research”, October 22-23, 2019, Kazan, Russian Federation.
- “Engineering Targeted Polymeric Nanocarriers for Drug Delivery”, International Conference “Biocatalysis -2019: Fundamentals and Applications”, June 24-28, 2019, Saint Petersburg, Russia.
- “Polymer Nanocarriers as Platform for Drug Delivery: Opportunities and Challenges”, 3rd International Scientific Forum “Science of the Future”, May 13-17, 2019, Sochi, Russian Federation
- “Polymeric Nanocarriers for Combination Therapy”, 16th International Nanomedicine and Drug Delivery Symposium (NanoDDS'18), September 21-23, 2018, Portland, OR.
- “Soft nanomaterials for drug delivery in cancer”, END2CANCER Conference, December 2017, Oklahoma City, OK.
- “Polymeric Nanocarriers for Combination Therapy”, 4th Annual Personalized NanoMedicine Symposium, November 2-3, 2017 Miami, FL.
- “Nanomedicine and Drug delivery”, The 10th Annual Nanoscience Technology Symposium “NanoFlorida 2017”, September 23-24, 2017 Miami, FL.
- “Amphiphilic Copolymers Mediated Therapeutics in Cancer”, International Conference “Biocatalysis -2017: Fundamentals and Applications”, June 25-30, 2017, Moscow Region, Russia

- “Charge-driven Platforms for the Delivery of Therapeutics”, 7th All-Russian Kargin Conference “Polymers-2017”, Moscow, Russia, June 2017.
- “Amphiphilic Copolymers Mediated Therapeutics in Cancer”, VII Annual Meeting RASA-USA, November 2-6, 2016, University of California Los Angeles, Los Angeles, CA.
- “Engineering of Soft Nanomaterials for Targeted Drug Delivery”, Biomaterials International 2016, October 30 – November 3, Kenting, Taiwan.
- “Polymeric Nanocarriers for Targeted Drug Delivery”, 2nd International Scientific Forum “Science of the Future – Science of the Youth”, September 20-23, 2016, Kazan, Russian Federation
- “Polyelectrolyte Nanogels as Platform for Drug Delivery in Cancer”, 11-th International Symposium on Polyelectrolytes - ISP 2016, June 27 - 30, 2016, Moscow, Russia
- “Polymer Nanogels for Drug Delivery in Cancer”, KFU-RASA Conference “Translational Medicine, reality and future”, May 24-25, 2016, Kazan Russian Federation
- 39th Annual Symposium, Macromolecular Science and Engineering “Polymers and Their Biomedical Applications”, October 22, 2015, University of Michigan, Ann Arbor, MI.
- “Soft Nanomaterials as Platform for Drug Delivery”, International Conference “Biocatalysis -2015: Fundamentals and Applications”, June 21-26, 2015, Moscow Region, Russian Federation.
- 14. “Ionic Nanogels as Targeted Drug Delivery Vehicles for Cancer Therapeutics” 17th International Symposium on “Recent Advances in Drug Delivery Systems”, June 2015, Salt Lake City, Utah.
- “Engineering of Soft Nanomaterials for Drug Delivery in Cancer”, 2nd Annual Personalized NanoMedicine Symposium, January 29-30, 2015, Florida International University, Miami, FL.
- “Targeted Nanogels for Chemotherapy of Cancer”, 12th International Nanomedicine and Drug Delivery Symposium (NanoDDS'14), October 6-8, 2014, Chapel Hill, NC.
- “Ionic Nanogels for Targeted Drug Delivery in Cancer”, The XII International Conference on Nanostructured Materials NANO 2014, July 13-18, Moscow, Russia.
- “Ionic Nanogels for Targeted Drug Delivery in Cancer”, AAPS Workshop “Emerging Trends in Gene/Cell-based Therapeutics and Nanocarriers for Drug Delivery”, April 25-26, 2014, Shanghai, China
- “Ionic Nanogels for Targeted Drug Delivery in Cancer”, Targeted Therapeutics and Translational Nanomedicine 2013 Symposium, November 2013, Perelman School of Medicine, University of Pennsylvania
- “Nanomedicine at UNMC”, 2013 Central Region IDeA Meeting, May 20-23, Kansas City.
- “Ionic Nanogels for Drug Delivery in Cancer”, 10th International Frontiers in Biomedical Polymers Symposium, June 3-5, 2013, Vancouver, Canada

- “Polymer Nanogels: Novel Biomaterials for Drug Delivery”, International Scientific School “Polymers in Medicine and Health”, May 27 –June 1, 2013, City of Kazan, Russia
- “Biodegradable Hybrid Nanogels for Drug Delivery in Cancer”, 10th International Nanomedicine and Drug Delivery Symposium (NanoDDS'12), Atlantic City, NJ, December 6-7, 2012.
- “Antiviral Peptide Nanocomplexes as Novel Therapeutic Modality” 244th ACS National Meeting, Philadelphia PA, 2012.
- “Engineering of Soft Nanomaterials for Drug Delivery in Cancer”, 76th Prague meeting on Macromolecules “Polymer in Medicine 2012”, July 2-5, 2012, Prague, Czech Republic.
- “Antiviral Peptide Nanocomplexes as Novel Therapeutic Modality”, Bionanotox 2012, Heraklion, Crete-Greece, May 6-13, 2012.
- “Engineering of Soft Nanomaterials for Drug Delivery: Challenges and Opportunities”, Annual Meeting of KSPST (Korean Society of Pharmaceutical Sciences and Technology), Cheongju, South Korea, November 10-11, 2011.
- “Ionic Nanogels as a Versatile Platform for Drug Delivery in Tumor: Opportunities and Challenges”, 2nd International Summer School “Nanomaterials and Nanotechnologies in Living Systems”, Moscow Region, Russia, September 19-24, 2011.
- “Design of Soft Materials for Drug Delivery: Opportunities and Challenges” Bionanotox 2011, Heraklion, Crete-Greece, May 2011.
- “Block Ionomer Nanogels – New Type of Biomaterials for Drug Delivery”, 5th All-Russian Kargin Conference “Polymers-2010”, Moscow, Russia, June 2010.
- “Nanogel Networks for Drug Delivery in Cancer”, Bionanotox 2010, Heraklion, Crete-Greece, May 2010.
- “Cross-linked polymer micelles with biodegradable ionic cores for anti-cancer drug delivery”, 238th ACS National Meeting, Washington DC, 2009. “Nanoengineering Block Copolymer Micelles for Drug Delivery”, 1st International Summer School “Nanomaterials and Nanotechnologies in Living Systems”, Moscow Region, Russia, June– July 2009.
- “Block Ionomer Complexes as Novel Bionanomaterials”, ISAT-3/PTW-3 (3rd International Symposium on Atomic Technology/3rd Polyscale Technology Workshop), Tokyo, Japan, March 2009.
- “Block Ionomer Complexes: Application in Nanomedicine”, MRS International Materials Research Conference, Chongqing, China, June 9 - 12, 2008.
- “Nanomedicine: Opportunities and Challenges”, invited lecture for the Summer Students Program at UNMC, July 2008
- “Polymeric Nanomaterials for Drug Delivery and Imaging”, International Student Research Forum, Special Course in Nanopharmacology and Nanomedicine, Omaha, 4 - 5 June 2008.
- “Block Ionomer Complexes: Application in Nanomedicine”, 6th International Symposium on Nanomedicine and Drug Delivery, Toronto, October 2008
- “Nanomaterials as Cancer Therapeutics”, Cancer Genes and Molecular Regulation Program seminar (Eppley Cancer Center, UNMC), November 2008

- “Polymer micelles as nanocarriers for drugs and imaging agents”, MSU-UNMC International Workshop "Fundamental Medicine and Science for the Health Care of 21 Century", December 2007, Moscow, Russia.
- “Cross-linked polymer micelles for cancer therapeutics”, ACS workshop "Polymers in Medicine and Biology", June 2007, Sonoma Valley, CA.
- “Block ionomer complexes for drug delivery”, 34th Annual Meeting of the Controlled Release Society, Long Beach, CA, July 2007.
- “Polymer micelles with cross-linked ionic cores for delivery of anticancer drugs”, 3rd International Nanomedicine and Drug Delivery Symposium, September 2005, Baltimore, MD.
- “Cross-linked polymer micelles for delivery of anticancer drugs”, ACS workshop "Polymers in Medicine and Biology-2005", June 2005, CA.
- “Novel block ionomer micelles with cross-linked ionic cores”, 228th ACS National Meeting, Philadelphia, PA, 2004.
- “Block ionomer-metal complexes", 10th IUPAC International Symposium on Macromolecule-Metal Complexes, Moscow, Russia, 2003.
- “Ionic polymer complexes for drug delivery", Mini-Symposium “Nanomedicine and Drug Delivery”, UNMC, Omaha, 2003.
- “Block ionomer complexes”, ACS Central Regional Meeting, Ypsilanti, MI, 2002.
- “Block ionomer complexes”, “Polyelectrolytes 2002”, 4th International Symposia on Polyelectrolytes, Lund, Sweden, 2002.
- “Block ionomer complexes: Implications for drug delivery”, 223rd ACS National Meeting, Orlando, FL, 2002.
- “Interaction of dispersed copolymer networks with oppositely charged amphiphilic molecules”, 222nd ACS National Meeting, Chicago, IL, 2001.
- “Reactive stabilization of vesicles from cationic surfactant self-assembled on anionic block ionomer template”, 220th ACS National Meeting, Washington DC, 2000.
- “Water soluble block ionomer complexes”, Princeton/Rhodia Symposium “Block Copolymers in Solutions”, Princeton University, Princeton, NY, June 22-23, 2000.
- “Self-assembly in block ionomer-surfactant complexes", 73rd ACS Colloid and Surface Science Symposium, MIT, Cambridge, MA, June 13-16, 1999.
- “Novel block ionomer complexes for drug delivery”, 216th ACS National Meeting, Boston, MA, 1998.

Lectures and seminars at academic institutions: 46

TEACHING AND MENTORING ACTIVITIES

Lectures in team-taught courses:

Professional Program:

PHSC 570 Pharmaceutical Sciences I (coordinator), 2008-2021 (S)

PHSC 520 Pharmaceutical Biochemistry, 2000-2021 (S)

PHPR 679 Therapeutic Applications of Biomacromolecules, 2004, 2012, 2013 (S)

PHSC 550 Introduction to Pharmaceutical Sciences, 2011-2020 (F)

PHSC 691 Pharmaceutical Sciences Applications in Pharmacy (coordinator), 2011-2019 (F)

“Short Course in Nanomedicine” (for NanoSURP students) 1 lecture, coordinator). 2016 (S)

Graduate Program:

PHSC 845 Quantitative Pharmaceutical Analysis, 2000-2003 (F), 2005 (F), 2007 (F), 2010 (F), 2012 (F) 2014-2020 (F)

PHSC 960 Current Topics in the Pharmaceutical Sciences 2002 (F), 2008 (S), 2015 (S), 2020 (S)

PHSC 890 Polymer Therapeutics, 2003 (S), 2005 (S), 2007 (S), 2010 (S)

PHSC 848 Nanoimaging and Bioimaging, 2007 - 2019 (F)

PHSC 852 Pharmaceutical Chemistry for Drug Delivery & Nanomedicine, 2008 (S), 2011(S), 2014 (S), 2016-2021 (S)

PHSC 885 Physical Pharmacy, 1997 (F), 1999 (F), 2008 (F), 2011(S), 2014 (F), 2016-2021 (S)

PHSC 851 Innovative Drug Delivery Systems, 2004 (S), 2007 (S), 2009 (S), 2011(F)

PHSC 902 Drug Delivery and Nanomedicine Research (coordinator), 2010, 2012, 2013 (F)

ENV888/CPH597 Principles of Toxicology, 2010 (F)

PHAR 930 “Neuroimmunology”, 2014-2021 (S)

PHSC 904 Biomaterials, Biocompatibility and Drug Delivery, 2015 (S), 2018 (S), 2019 (F)

CRGP 910 Intensive Training in Translational Cancer Research, 2017-2020 (F)

Member, Advisory Committee, Certificate Program “Nanomedicine for Diagnosis and Therapy” (2009-2014)

Graduate Students:

2005-2006 Satya Bontha, M.S.

2006-2010 Jong Oh Kim, PhD

2006- 2010 Natalya Nukolova, PhD (Moscow State University)

2007-2011 Hardeep Oberoi, Ph.D.

2008 - 2011 Andrea Gaydoss, M.S. (Toxicology Graduate Program)

2010 - 2015 Swapnil Desale

2010 - 2015 Jinjin Zhang

2011 - 2016 Hangting Hu

2013 - 2017 Soni Kruti

2013-2018 Tong Liu

2017 -2018 Insiya Mukadam

2014 - 2020 Xinyuan Xi

Graduate supervisory/advisory committees (other than advised students): 43

Rotation graduate students/ Undergraduate/summer students: 31

Postdoctoral trainees, visiting scholars, research fellows:

2014 - 2020 Fan Lei, Postdoctoral Research Assistant
2014 - 2015 Xui Li, Postdoctoral Research Assistant
2012- 2021 Svetlana Romanova, Postdoctoral Research Assistant
2012- 2019 Shaheen Ahmed, Postdoctoral Research Assistant
2013 -2015 Anna Brynskikh, Postdoctoral Research Assistant
2011- 2013 Masao Kimamura, Postdoctoral Research Assistant
2011- 2012 Hardeep S. Oberoi, Postdoctoral Research Assistant
2010 -2011 Jong Oh Kim, Ph.D., Postdoctoral Research Assistant
2007 - 2008 Malgorzata Rybak, Ph.D., Postdoctoral Research
2008 - 2009 Wenguang Zhang, Ph.D., Research Instructor
2006 - 2008 Alexander Goponenko, Ph.D., Postdoctoral Research