

David Oupický

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PROFESSIONAL EXPERIENCE

2009–present Graduate Director, Department of Pharmaceutical Sciences, WSU
2007–present **Associate Professor** (tenured), Department of Pharmaceutical Sciences, WSU
2006–present Scientific Member, Barbara Ann Karmanos Cancer Institute
2004–present Joint Faculty, Department of Biomedical Engineering, WSU
2002–2007 **Assistant Professor**, Department of Pharmaceutical Sciences, WSU

EDUCATION

1999–2002 **Post-Doctoral** Research Fellow
CRC Institute for Cancer Studies, University of Birmingham, UK
Advisor: Prof. Leonard W. Seymour
1999 **Ph.D.**, Macromolecular Chemistry
Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic,
Prague, Czech Republic
Advisor: Prof. Karel Ulbrich
1993 **M.Sc.**, Polymer Engineering
Institute of Chemical Technology, Prague, Czech Republic

MEMBERSHIP ON NIH AND NSF REVIEW PANELS

- Gene and Drug Delivery (GDD) Systems NIH study section Standing Member, 2009-2013
- Cancer Drug Development and Therapeutics (ZRG1 ONC-L (10)) NIH study section (2009-present, Ad Hoc)
- NIH Fellowships study section ZRG1 F14-G(20)L (2009-present, ad hoc)
- NSF Grant Review panel, Technologies for Cellular Analyses (2007)

PUBLICATIONS SUMMARY

61 peer-reviewed publications (>2300 citations, h-index 28)
5 reviews and editorials
6 book chapters

RESEARCH INTERESTS

- Drug and gene delivery
- Stimuli-responsive biomaterials
- Nanomedicine

RESEARCH FUNDING

Current

- R21HL098786, "New methods to deliver therapeutic drugs in myocardial ischemia/reperfusion injury." Role: **Co-I** (02/2010-01/2012), \$418,000
- Richard Barber Grant, "Functionalized iron oxide magnetic nanoparticles for DNA binding and hyperthermia enhanced transfection", Role: **Co-I** (10/2010-09/2011) \$20,000
- WSU Nano-Incubator, "Mesoporous silica nanoparticles for combination drug-siRNA delivery", Role: **PI** (10/2010-09/2011) \$40,000
- WSU Bridge Funding, Role: **PI** (09/2010-08/2011), \$35,000
- WSU OVPR Graduate Research Assistantship, Role: **PI** (09/2011-08/2012), \$35,000

Pending

- NIH, R21EB014570, "Drug-based polycations for combination drug-gene delivery." Role: **PI**, \$418,000
Reviewed in August, scored at 6th percentile
- NIH, R01EB015216-01, "Multilayered redox-responsive nanoparticles for delivery of drug-siRNA combinations." Role: **PI**, \$1,870,000
Reviewed in September, scored at 32nd percentile
- NIH, R01CA168313, "DNA Delivery by Biodegradable Polycationic CXCR4 Antagonists." Role: **PI**

Past

- R01 CA109711, "Gene Delivery Modulated by Redox Potential Gradients" National Cancer Institute, NIH, Role: **PI** (06/2005–04/2011), \$1,520,000
- R21 EB008164, "Hollow porous silica nanoparticles for targeted drug delivery" National Institute of Biomedical Imaging and Bioengineering, NIH, Role: **PI** (09/2007–08/2010), \$418,000
- R21 EB004388, "Synthetic vectors for pH-targeted gene delivery" National Institute of Biomedical Imaging and Bioengineering, NIH, Role: **PI** (01/2005–08/2007), \$418,000
- Wayne State University OVPR Grant in Nanomaterials, "Synthesis of biodegradable block copolymer prodrug DNA micelles." Role: **PI** (05/2007–11/2008), \$90,000
- Wayne State University Initiative in Nanotechnology, Role: **Co-I** (10/2005–09/2006), \$30,000
- WSU OVPR Graduate Research Assistantship, Role: **PI** (09/2010-08/2011), \$35,000
- WSU OVPR Graduate Research Assistantship, Role: **PI** (09/2008-08/2009), \$35,000
- The Susan G. Komen Breast Cancer Foundation, Role: **Co-I** (04/2004–04/2005)
- Pre-Clinical Research Grant, Bristol-Myers Squibb Medical Imaging, Inc. Role: **PI** (01/2004–12/2004)
- American Association of Colleges of Pharmacy New Investigators Program grant, Role: **PI** (12/2003–11/2004)
- Wayne State University Research Grant, Role: **PI** (05/2003–04/2004)

WSU SERVICE

University

- Faculty Research Advisory Committee, WSU VP for Research (2009-present)
- Academic Senate (2010-present)
- Research Committee of the Academic Senate (2011-present)
- Facilities Committee of the Academic Senate (2010-11)
- WSU Sabbatical Leaves Committee (2008-2009)

College

- Chair, College Research Committee (2011-present)
- College representative to the United States Pharmacopeia (2004-present)
- PharmD Admissions committee, College of Pharmacy (2006-2008, 2011-present)
- CAPP committee, College of Pharmacy (2004-2009)

Department

- Chair, Department Graduate Program Committee (2009-present)
- Faculty advisor of AAPS student chapter (2010-present)
- Faculty co-advisor of Rho Chi Pharmacy Honor Society (2009-present)
- Promotion and Tenure committee, Department of Pharmaceutical Sciences (2010-present)
- Chair, Faculty search committee, Department of Pharmaceutical Sciences (2007)
- Faculty search committee, Department of Pharmaceutical Sciences (2007)
- Appointments Committee, Department of Pharmaceutical Sciences
- Salary committee, Department of Pharmaceutical Sciences
- Faculty search committee, Department of Pharmaceutical Sciences

AWARDS AND HONORS

- Faculty Research Recognition Award, College of Pharmacy, WSU (2006)
- Teacher of the Year, College of Pharmacy, WSU (2004)
- American Foundation for Pharmaceutical Education Faculty New Investigator (2003)
- Ministry of Education of the Czech Republic Award for Outstanding Young Scientists (1999)
- Wichterle Fellowship, Institute of Macromolecular Chemistry, Prague (1998)
- Votocek Fellowship, Institute of Chemical Technology, Prague (1995)

EDITORIAL ACTIVITY

1. Advanced Drug Delivery Reviews, Theme Editor (2008) "Design and development strategies of polymer materials for drug and gene delivery applications."
2. Pharmaceutical Research, Theme Editor (2010) "Polymeric Biomaterials for Gene and Drug Delivery"
3. Methods in Molecular Biology, Eds. Ogris and Oupicky (2011) "Nanotechnology for Nucleic Acid Delivery"

MANUSCRIPT REVIEWER

Regular reviewer

Journal of Controlled Release

Biomaterials

Biomacromolecules

Bioconjugate Chemistry

International Journal of Pharmaceutics

Pharmaceutical Research

Occasional reviewer

Nature Materials (2 manuscripts in 2011)

JACS

SERVICE AT PROFESSIONAL CONFERENCES

- Controlled Release Society (CRS) Annual Meeting, Washington DC, Session Co-Chair, "Bioactive Materials: Diagnostics" (2011)
- CRS Annual Meeting, Young Scientist Workshop Co-Chair, Washington DC, "Understanding siRNA" (2011)
- Nanomedicine and Drug Delivery Symposium NanoDDS'11, Salt Lake City, Poster Judge (2011)
- Controlled Release Society (CRS) Annual Meeting, New York, Session Co-Chair, "Responsive Delivery Systems" (2008)
- American Society of Gene Therapy Annual Meeting, Seattle, Session Co-Chair, "Intracellular Trafficking of Non-Viral Vehicles" (2007)
- Controlled Release Society (CRS) Annual Meeting, Long Beach, Session Co-Chair, "Nanotechnology" (2007)

TEACHING

- Dosage Form Design and Biopharmaceutics (PSC3120), 2002-present, course coordinator
- Advanced Drug Formulation and Delivery I (PCS7040), 2003-present, course coordinator
- Advanced Drug Formulation and Delivery II (PSC7720), 2009-present
- Pharmacotherapeutic Problem Solving (PHA4210), 2005-present
- Fundamentals of Drug Design (PSC6000), 2004–2006
- Introduction to Research (PSC6800), 2003–2008
- Nanobioscience (PSL7215), 2007–2009
- Pharmaceutical Biotechnology (PSC3210), 2003–2008
- Principles of Drug Disposition (PSC3310), 2003–2007

SELECTED INVITED ORAL PRESENTATIONS

- 07/2012 76th Prague Meeting on Macromolecules, Polymers in Medicine 2012, Prague
- 04/2012 Department of Pharmacology, Perelman School of Medicine, University of Pennsylvania
- 04/2012 Department of Pharmaceutical Sciences, Center for Drug Delivery and Nanomedicine, University of Nebraska Medical Center, Omaha, NE
- 03/2012 Division of Pharmaceutical Sciences, Duquesne University, Pittsburgh, PA
- 02/2012 Department of Pharmacology, School of Medicine, Wayne State University, Detroit, MI
- 01/2012 Department of Pharmaceutical Sciences, University of Pittsburgh, Pittsburgh, PA
- 12/2011 Department of Biomedical Engineering, Case Western Reserve University, Cleveland, OH
- 11/2011 Pharmaceutical Sciences Division, University of Wisconsin-Madison
- 11/2011 Division of Medicinal and Natural Products Chemistry, University of Iowa
- 03/2011 Developmental Therapeutics Program, Karmanos Cancer Institute, Detroit, MI
- 02/2011 Department of Biomedical Engineering, Stevens Institute of Technology, Hoboken, NJ
- 09/2010 Symposium on Innovative Polymers for Controlled Delivery (SIPCD), Suzhou, China
- 09/2010 Department of Polymer Science and Engineering, University of Science and Technology of China, Hefei, China
- 07/2009 Controlled Release Society Annual Meeting, Copenhagen, Denmark
- 04/2008 Department of Pharmacology, University of Toledo, OH
- 07/2007 Controlled Release Society Annual Meeting, Long Beach, CA
- 04/2007 Nano@Wayne Seminar, Wayne State University

02/2007 13th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City
 02/2007 Department of Radiology, University of Michigan, Ann Arbor, MI, February 2007
 08/2006 232nd National Meeting of the American Chemical Society, San Francisco, CA
 07/2006 Department of Radiation Oncology, Henry Ford Hospital, Detroit, MI
 07/2006 Karmanos Cancer Institute, Detroit, MI
 04/2006 Abbott Laboratories, Abbott, Illinois
 09/2005 iNANO School, University of Aarhus, Denmark
 08/2005 Department of Radiology, University of Arkansas for Medical Sciences, Little Rock
 07/2005 PET-center, Michigan Children's Hospital, Wayne State University, Detroit
 03/2004 Department of Chemical Engineering, Wayne State University, Detroit
 05/2001 4th Annual Meeting of the American Society for Gene Therapy, Seattle
 08/2001 Department of Materials Science, ETH Zurich, Switzerland

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- Controlled Release Society
- American Association of Pharmaceutical Scientists
- Rho Chi Society

GRADUATE STUDENTS AND POSTDOCS ADVISED

Current group members

2010-present Dr. Stuart Hazeldine, postdoctoral fellow
 2009-present Yu Zhu, PhD student
 2007-present Jing Li, PhD student
 2007-present Amit Wani, PhD student
 2011-present Maha El-Sayed, MS student
 2011-present Kyle Horton, MS student (Biomedical Engineering)
 2011-present Shereef Hamed, MS student (Biomedical Engineering)
 2008-present Yi Zou, PhD student (co-advisor, Chemical Engineering)

Past group members

Postdocs

1. Dr. Chao Wu, postdoctoral fellow, 03/2008–03/2010
2. Dr. Shanta Raj Bhattarai, postdoctoral fellow, 08/2007–08/2009
3. Dr. Yanmei Dong, postdoctoral fellow, 08/2007–08/2009
4. Dr. Jun Chen, postdoctoral fellow, 08/2007–12/2008
5. Dr. Yezi You, postdoctoral fellow, 05/2005–08/2007
6. Dr. Harpreet Kaur, postdoctoral fellow, 06/2005–05/2007
7. Dr. Harender Bisht, postdoctoral fellow, 08/2003–07/2005

PhD students

8. Jenifer Blacklock, PhD graduate (Biomedical Engineering), 05/2006–06/2009
9. Qinghui Zhou, PhD graduate, 09/2004–05/2009
10. Devika Soundara Manickam, PhD graduate 01/2006–12/2008
11. Lei Wan, PhD student (co-advisor, Chemical Engineering), 01/2006–12/2007

MS students

12. Lakshmi Jayanthi, MS student (Biomedical Engineering), 05/2006–05/2008
13. Yi Huang, MS student, 09/2005–04/2007
14. Michael S. French, MS student (Biomedical Engineering), 05/2006–04/2007
15. Sandeep Kakade, MS student (co-advisor, Chemical Engineering), 02/2006–02/2007
16. Devika Soundara Manickam, MS student, 01/2004–12/2005
17. Jenifer Blacklock, MS student (Biomedical Engineering), 06/2005–04/2006

Other

18. Mohammad Abdul Khader, PhD rotation student, 08/2007–08/2008
19. Ramesh Rajasekaran, PhD student, 05/2005–08/2007
20. Veena Diwadkar, PhD student, 01/2003–12/2003

Professional (PharmD) and Undergraduate students advised

21. Samuel Anderson, PharmD directed studies, 2010
22. Monica Hannawa, PharmD directed studies, 2010
23. Mae Kasha, PharmD directed studies, 2010
24. Allie Sowa, undergraduate student, 2010
25. Vera Ross, PharmD directed studies, 2006
26. Zhaniela Nence, PharmD directed studies, 2006
27. RoseAnn Fain, PharmD directed studies, 2006
28. Regina Niba, PharmD directed studies, 2006
29. Swati Nara, PharmD directed studies, 2006
30. Kavya Parthasarathy, undergraduate student, 2005
31. Jamie Hwang, undergraduate student, 2005
32. Stephanie Dickinson, PharmD directed studies, 2005
33. Matthew T. Brown, undergraduate student, 2004

COMPLETE LIST OF PUBLICATIONS

A. Original publications

1. D. S. Manickam, J. Li, D. A. Putt, Q. H. Zhou, C. Wu, L. H. Lash, **D. Oupicky**. "Effect of innate glutathione levels on activity of redox-responsive gene delivery vectors." *Journal of Controlled Release*, **2010**, 141, 77-84. [IF 7.2, times cited: 9]
2. Y. Dong, J. Li, C. Wu, **D. Oupicky**. "Bisethyl norspermine lipopolyamine as potential delivery vector for combination drug/gene anticancer therapies." *Pharmaceutical Research*, **2010**, 27(9) 1927-38. PMID: 20577786 [IF 4.5, times cited: 0]
3. S. R. Bhattarai, E. Muthuswamy, A. Wani, M. Brichacek, A. L. Castaneda, S. Brock, **D. Oupicky**. "Enhanced gene and siRNA delivery by polycation-modified mesoporous silica nanoparticles loaded with chloroquine." *Pharmaceutical Research*, **2010**, 27(12), 2556-2568. PMID: 20730557 [IF 4.5, times cited: 1]
4. J. Blacklock, G. Mao, **D. Oupicky**, H. Möhwald. "DNA release dynamics from bio-reducible layer-by-layer films." *Langmuir*, **2010**, 26(11), 8597-8605. PMID: 20131916 [IF 4.3, times cited: 4]

5. M. O. Andersen, A. Lichawska, A. Arpanaei, S. M. Rask Jensen, H. Kaur, **D. Oupicky**, F. Besenbacher, P. Kingshott, J. Kjems, K. A. Howard. "Surface Functionalisation of PLGA Nanoparticles for Gene Silencing." *Biomaterials*, **2010**, 31(21), 5671-5677. PMID: 20434215 [IF 7.9, times cited: 9]
6. R. Regmi, S. R. Bhattarai, C. Sudakar, A. S. Wani, R. Cunningham, P. P. Washnava, R. Naik, **D. Oupicky**, G. Lawes. "Hyperthermia Controlled Rapid Drug Release from Thermosensitive Magnetic Microgels." *Journal of Materials Chemistry*, **2010**, 20, 6158-6163 [IF 5.1, times cited: 6]
7. J. Blacklock, A. Vetter, A. Lankenau, **D. Oupicky**, H. Möhwald. "Turning the mechanical properties of bioreducible multilayer films for improved cell adhesion and transfection activity." *Biomaterials*, **2010**, 31, 7167-7174. PMID: 20580430 [IF 7.9, times cited: 5]
8. J. Blacklock, T. K. Sievers, H. Handa, Y. Z. You, **D. Oupicky**, G. Mao, H. Möhwald. "Cross-Linked Bioreducible Layer-by-Layer Films for Increased Cell Adhesion and Transgene Expression." *Journal of Physical Chemistry B*, **2010**, 114(16), 5283-91. PMID: 20369813 [IF 3.6, times cited: 2]
9. U. L. Rahbek, A. F. Nielsen, M. Dong, Y. You, A. Chauchereau, **D. Oupicky**, F. Besenbacher, J. Kjems, K. A. Howard. "Bioresponsive hyperbranched polymers for siRNA and miRNA delivery." *Journal of Drug Targeting*, **2010**, 18(10), 812-20. PMID: 20979442 [IF 2.5, times cited: 2]
10. J. Chen, C. Wu, **D. Oupicky**. "Bioreducible Hyperbranched Poly(amido amine)s for Gene Delivery." *Biomacromolecules*, **2009**, 10(10), 2921-2927. [IF 5.3, times cited: 12]
11. L. Wan, Y. Z. You, Y. Zou, **D. Oupicky**, G. Mao. "DNA release dynamics from bioreducible poly(amido amine) polyplexes." *Journal of Physical Chemistry B*, **2009**, 113(42), 13735-41. [IF 3.6, times cited: 4]
12. L. Shin, N. Basi, J. S. Lee, W. J. Cho, Z. Chen, R. Abu-Hamdah, **D. Oupicky**, B. P. Jena. "Involvement of vH⁺-ATPase in synaptic vesicle swelling." *Journal of Neuroscience Research*, **2009**, 88(1), 95-101. [IF 3.0, times cited: 3]
13. Q. H. Zhou, C. Wu, D. S. Manickam, **D. Oupicky**. "Evaluation of pharmacokinetics of bioreducible gene delivery vectors by real-time PCR." *Pharmaceutical Research*, **2009**, 26(7), 1581-1589. [IF 4.5, times cited: 8]
14. Q. H. Zhou, Y. Z. You, C. Wu, Y. Huang, **D. Oupicky**. "Cyclic RGD-targeted reversibly-stabilized nanoparticles enhance cell uptake and transfection in vitro." *Journal of Drug Targeting*, **2009**, 17(5), 364-373. [IF 2.5, times cited: 4]
15. J. Blacklock, Y. Z. You, Q. H. Zhou, G. Mao, **D. Oupicky**. "Gene delivery in vitro and in vivo from bioreducible multilayered polyelectrolyte films of plasmid DNA." *Biomaterials*, **2009**, 30(5), 939-950. [IF 7.9, times cited: 31]
16. S. Kakade, D. S. Manickam, H. Handa, G. Mao, **D. Oupicky**. "Transfection activity of layer-by-layer plasmid DNA/poly(ethylenimine) films deposited on PLGA microparticles." *International Journal of Pharmaceutics*, **2009**, 365, 44-52. [IF 3.6, times cited: 6]
17. L. Wan, D. S. Manickam, **D. Oupicky**, G. Mao. "DNA Release Dynamics from Reducible Polyplexes by Atomic Force Microscopy" *Langmuir*, **2008**, 24, 12474-12482. [IF 4.3, times cited: 12]
18. D. S. Manickam, A. Hirata, D. A. Putt, L. H. Lash, F. Hirata, **D. Oupicky**. "Overexpression of Bcl-2 as a proxy redox stimulus to enhance activity of non-viral redox-responsive delivery vectors." *Biomaterials*, **2008**, 29, 2680-2688. [IF 7.9, times cited: 6]

19. Y. Z. You, K. Kalebaila, S. L. Brock, **D. Oupicky**. "Temperature-Controlled Uptake and Release in PNIPAM-modified Porous Silica Nanoparticles." *Chemistry of Materials*, **2008**, 20, 3354-3359. [IF 6.4, times cited: 62]
20. U. L. Rahbek, K. A. Howard, **D. Oupicky**, D. S. Manickam, M. Dong, A. F. Nielsen, F. Besenbacher, J. Kjems. "Intracellular siRNA and Precursor miRNA Trafficking Using Bioresponsive Copolypeptides." *Journal of Gene Medicine*, **2008**, 10, 81-93. [IF 3.1, times cited: 14]
21. H. Zhang, R. Thomas, **D. Oupicky**, F. Peng. "Synthesis and characterization of new copper thiosemicarbazone complexes with an ONNS quadridentate system: cell growth inhibition, S-phase cell cycle arrest and proapoptotic activities on cisplatin-resistant neuroblastoma cells." *Journal of Biological Inorganic Chemistry*, **2008**, 13, 47-55. [IF 3.3, times cited: 10]
22. Y. Z. You, Q. H. Zhou, D. S. Manickam, L Wan, G. Mao, **D. Oupicky**. "Dually Responsive Multiblock Copolymers via Reversible Addition-Fragmentation Chain Transfer Polymerization: Synthesis of Temperature- and Redox-Responsive Copolymers of Poly(N-isopropylacrylamide) and Poly(2-(dimethylamino)ethyl methacrylate)." *Macromolecules*, **2007**, 40, 8617-8624. [IF 4.8, times cited: 47]
23. L. Wan, H. S. Bist, Y. Z. You, **D. Oupicky**, G. Mao. "Temperature-Reversible Ultrathin Films of N-Isopropylacrylamide Terpolymer Adsorbed at the Solid-Liquid Interface." *Langmuir*, **2007**, 23, 12159-12166. [IF 4.3, times cited: 2]
24. Y. Z. You, D. S. Manickam, Q. H. Zhou, **D. Oupicky**. "A versatile approach to reducible vinyl polymers via oxidation of telechelic oligomers prepared by RAFT polymerization." *Biomacromolecules*, **2007**, 8, 2038-2044. [IF 5.3, times cited: 27]
25. Y. Z. You, D. S. Manickam, Q. H. Zhou, **D. Oupicky**. "Reducible poly(2-dimethyl aminoethyl methacrylate): Synthesis, cytotoxicity, and gene delivery activity." *Journal of Controlled Release*, **2007**, 122, 217-225. [IF 7.2, times cited: 47]
26. M. Dong, K. A. Howard, **D. Oupicky**, H. Bisht, J. Kjems, F. Besenbacher. "Visualisation of thermal activated nanocarriers using in situ atomic force microscopy." *Nanotechnology*, **2007**, 18, 185501 (5pp). [IF 3.6, times cited: 1]
27. Y. Z. You, **D. Oupicky**. "Synthesis of temperature-responsive heterobifunctional block copolymers of PEG and PNIPAM." *Biomacromolecules*, **2007**, 8, 98-105. [IF 5.3, times cited: 46]
28. J. Blacklock, H. Handa, D. S. Manickam, G. Mao, A. Mukhopadhy, **D. Oupicky**. "Disassembly of Layer-by-Layer Films of Plasmid DNA and Reducible TAT Polypeptide." *Biomaterials*, **2007**, 28, 117-124. [IF 7.9, times cited: 41]
29. K. A. Howard, M. Dong, **D. Oupicky**, H. S. Bisht, C. Buss, F. Besenbacher, J. Kjems. "Nanocarrier Stimuli-Activated Drug Delivery." *Small*, **2007**, 3, 54-57. [IF 7.3, times cited: 13]
30. J. Yuan, Y. Z. You, X. Lu, O. Muzik, **D. Oupicky**, F. Peng. "Synthesis of Poly(APMA)-DOTA-64Cu conjugates for interventional radionuclide therapy of prostate cancer: Assessment of intra-tumoral retention by microPET imaging." *Molecular Imaging*, **2007**, 6, 10-17. [IF 3.2, times cited: 5]
31. D. S. Manickam, **D. Oupicky**. "Multiblock reducible copolypeptides containing histidine-rich and nuclear localization sequences for gene delivery." *Bioconjugate Chemistry*, **2006**, 17, 1395-1403. [IF 5.0, times cited: 42]

32. H. S. Bisht, D. S. Manickam, Y. Z. You, **D. Oupicky**. "Temperature-Controlled Properties of DNA Complexes with Poly(ethylenimine)-graft-poly(*N*-isopropylacrylamide)." *Biomacromolecules*, **2006**, 7, 1169-1178. [IF 5.3, times cited: 51]
33. H. S. Bisht, L. Wan, G. Mao, **D. Oupicky**. "pH-Controlled association of PEG-containing terpolymers of *N*-isopropylacrylamide and 1-vinylimidazole." *Polymer*, **2005**, 46, 7945-7952. [IF 3.8, times cited: 12]
34. Q. H. Zhou, D. L. Miller, R. C. Carlisle, L. W. Seymour, **D. Oupicky**. "Ultrasound-enhanced transfection activity of HPMA-stabilized DNA polyplexes with prolonged plasma circulation." *Journal of Controlled Release*, **2005**, 106, 416-427. [IF 7.2, times cited: 8]
35. M. L. Read, S. Singh, Z. Ahmed, M. Stevenson, S. Briggs, **D. Oupicky**, L. Barrett, U. Tirlapur, M. Berry, J. Preece, A. Logan, L. W. Seymour. "A versatile reducible polycation-based system for efficient delivery of a broad range of nucleic acids." *Nucleic Acids Research*, **2005**, 33, e86. [IF 7.8, times cited: 114]
36. A. L. Parker, K.D. Fisher, **D. Oupicky**, M. L. Read, S. A. Nicklin, A. H. Baker, L. W. Seymour. "Enhanced gene transfer activity of peptide-targeted gene-delivery vectors." *Journal of Drug Targeting*, **2005**, 13, 39-51. [IF 2.5, times cited: 23]
37. D. S. Manickam, H. S. Bisht, L. Wan, G. Mao, **D. Oupicky**. "Influence of TAT-peptide polymerization on properties and transfection activity of TAT/DNA polyplexes." *Journal of Controlled Release*, **2005**, 102, 293-306. [IF 7.2, times cited: 45]
38. **D. Oupicky**, T. Reschel, C. Konak, L. Oupicka. "Temperature controlled behavior of self-assembly gene delivery vectors based on complexes of DNA with poly(L-lysine)-*graft*-poly(*N*-isopropylacrylamide)." *Macromolecules*, **2003**, 36, 6863-6872. [IF 4.8, times cited: 36]
39. M. L. Read, K. H. Bremner, **D. Oupicky**, N. K. Green, P. F. Searle, L. W. Seymour. "Vectors based on reducible polycations facilitate intracellular release of nucleic acids." *Journal of Gene Medicine*, **2003**, 5, 232-245. [IF 3.1, times cited: 86]
40. **D. Oupicky**, A. L. Parker, L. W. Seymour. "Laterally stabilized complexes of DNA with linear reducible polycations: Strategy for triggered intracellular activation of DNA delivery vectors." *Journal of the American Chemical Society*, **2002**, 124, 8-9. [IF 9.0, times cited: 108]
41. **D. Oupicky**, M. Ogris, K. A. Howard, P. R. Dash, K. Ulbrich, and L. W. Seymour. "Importance of lateral and steric stabilization of polyelectrolyte gene delivery vectors for extended systemic circulation." *Molecular Therapy*, **2002**, 5, 463-472. [IF 7.1, times cited: 116]
42. C. Konak, T. Reschel, **D. Oupicky**, K. Ulbrich. "Thermally controlled association in aqueous solutions of poly(L-lysine) grafted with poly(*N*-isopropylacrylamide)." *Langmuir*, **2002**, 18, 8217-8222. [IF 4.3, times cited: 29]
43. C. M. Ward, M. Pechar, **D. Oupicky**, K. Ulbrich and L. W. Seymour. "Modification of pLL/DNA complexes with a multivalent hydrophilic polymer permits folate-mediated targeting in vitro and prolonged plasma circulation in vivo." *Journal of Gene Medicine*, **2002**, 4, 536-547. [IF 3.1, times cited: 76]
44. T. Reschel, C. Konak, **D. Oupicky**, L.W. Seymour, K. Ulbrich. "Physical properties and in vitro transfection efficiency of gene delivery vectors based on complexes of DNA with synthetic polycations." *Journal of Controlled Release*, **2002**, 81 201-217. [IF 7.2, times cited: 109]

45. A. L. Parker, **D. Oupicky**, P. R. Dash, L. W. Seymour. "Methodologies for monitoring particle formation by self-assembly of DNA with poly(L-lysine)." *Analytical Biochemistry*, **2002**, 302, 75-80. [IF 3.2, times cited: 47]
46. **D. Oupicky**, R. C. Carlisle, L.W. Seymour. "Triggered intracellular activation of disulfide crosslinked polyelectrolyte gene delivery complexes with extended systemic circulation in vivo." *Gene Therapy*, **2001**, 8(9), 713-724. [IF 4.5, times cited: 94]
47. J. Kriz, D. Kurková, J. Dybal, **D. Oupicky**. "Cooperative interactions of unlike macromolecules: NMR study of ionic coupling of poly[2-(trimethylammonio)ethyl methacrylate chloride]-block-poly(N-(2-hydroxypropyl) methacrylamide) polycation with oligophosphates in D2O." *Journal of Physical Chemistry A*, **2000**, 104, 10972-10985. [IF 2.7, times cited: 17]
48. C. Konak, **D. Oupicky**, V. Chytrý, K. Ulbrich, M. Helmstedt. "Thermally controlled association in aqueous solutions of diblock copolymers of poly[N-(2-hydroxypropyl)methacrylamide] and poly(N-isopropylacrylamide)." *Macromolecules*, **2000**, 33, 5318-5320. [IF 4.8, times cited: 44]
49. **D. Oupicky**, K. A. Howard, C. Konak, P. R. Dash, K. Ulbrich, L.W. Seymour. "Steric stabilization of poly-L-lysine/DNA complexes by covalent attachment of semitelechelic poly[N-(2-hydroxypropyl) methacrylamide]." *Bioconjugate Chemistry*, **2000**, 11, 492-501. [IF 5.0, times cited: 74]
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