

2018
FEDORUK CENTRE PUBLICATION LIST

1. **760 / 27 - Conjugation of Daratumumab with 225-actinium Greatly Increases its Antitumor Activity Against Multiple Myeloma Tumors**
Wojciech Dawicki, Kevin Allen, Rubin Jiao, Mackenzie Malo, Keisha Thomas, Mark S. Berger, Ekaterina Dadachova
Proceedings of the American Association for Cancer Research (AACR) Annual Meeting, Chicago, IL, USA (2018 April 15)
2. **⁸⁹Zr-Nimotuzumab for ImmunoPET Imaging of Epidermal Growth Factor Receptor I**
Chekol, R., Solomon, V. R., Alizadeh, E., Bernhard, W., Fisher, D., Hill, W., Barreto, K., DeCoteau, J. F., Parada, A. C., Geyer, R. C., et al.
Oncotarget **9** (24): 17117-17132 (2018)
3. **^{99m}Tc(CO)₃⁺ Labeled Domain I/II-Specific Anti-EGFR (scFv)₂Antibody Fragment for Imaging EGFR Expression**
Viswas Raja, Solomon Carolina Gonzalez, ElaheAlizadeh, WendyBernhard, Siddesh V.Hartimath, KrisBarreto, Clarence Ronald Geyer, Humphrey Fonge
European Journal of Medicinal Chemistry **157** (5): 437-446 (2018)
<https://doi.org/10.1016/j.ejmech.2018.08.014>
4. **A ⁸⁹Zr-labeled Lipoplex Nanosystem for Image-Guided Gene Delivery: Design, Evaluation of Stability and In Vivo Behaviour**
Istvan Hajdu, Amal Makhlof, Viswas Raja Solomon, Deborah Michel, Mays Al-Dulaymi, Kishor M Wasan, Humphrey Fonge, Ildiko Badea
International Journal of Nanomedicine **13**: 7801-7818 (2018)
<http://dx.doi.org/10.2147/IJN.S179806>
5. **AHP-based Siting of Small Modular Reactors : A Case Study in Saskatchewan, Canada**
R. Shrestha, D. Wagner, and I. Al-Anbagi
38th Annual Conference of the Canadian Nuclear Society and 42nd Annual CNS/CNA Student Conference Sheraton Cavalier Hotel, Saskatoon, SK, Canada (2018 June 3-6)
6. **A Case Study on Introducing Small Modular Reactors into a New Non-Nuclear Jurisdiction**
E.M.A. Hussein, I. Al-Anabagi, S. Bend, K. Bethune, J. Dale, G. Ferguson, R. Gokaraju, G.H. Huang, D.W. McMartin, B. Mehran, D. G. Newman, J.M. Piwowar, S. Sharma, D. Wagner
38th Annual Conference of the Canadian Nuclear Society and 42nd Annual CNS/CNA Student Conference Sheraton Cavalier Hotel, Saskatoon, SK, Canada (2018 June 3-6)
7. **A Novel Synthetic Trivalent Single Chain Variable Fragment (Tri-ScFv) Construction Platform Based on the SpyTag/SpyCatcher Protein Ligase System**
Alam, M. K., Brabant, M., Viswas, R. S., Barreto, K., Fonge, H., Ronald Geyer, C.
BMC Biotechnol. **18** (1): 55 (2018)
8. **Analysis for Siting and Sizing of a Small Modular Reactor – A Case Study in Canada**
B. Poudel, K. Joshi, and R. Gokaraju
20th National Power System Conference, Tiruchirappalli, Tamil Nadu, India (2018)

9. **An Approach to Assess Reliability of Offsite Power as a Site Selection Criteria for a Nuclear Power Plant**
B. Poudel, K. Joshi, and R. Gokaraju
38th Annual Conference of the Canadian Nuclear Society and 42nd Annual CNS/CNA Student Conference Sheraton Cavalier Hotel, Saskatoon, SK, Canada (2018 June 3-6)
10. **Applying a Modular PET System to Investigate Bioremediation of Subsurface Contamination: A Proof-of-Principle Study**
Yu-Fen Chang, Steven D. Siciliano, Steven Mamet, Alexandra J. Conway, Alixandra Schebel, Whitney Shannon, Kelly Christopher, Kyle Thompson, Alireza Talebitaher, Zisis Papandreou, and Aram Teymurazyan
IOP Conf. Series: Journal of Physics: Conf. Series **1120**: 012077 (2018)
The 8th International Conference on Theoretical and Applied Physics
doi:10.1088/1742-6596/1120/1/012077
11. **Biodistribution of a Radiolabeled Antibody in Mice as an Approach to Evaluating Antibody Pharmacokinetics**
Kevin J. H. Allen, Ruben Jiao, Mackenzie E. Malo, Connor Frank and Ekaterina Dadachova
Pharmaceutics 10(262) (2018) doi:10.3390/pharmaceutics10040262
12. **Development of a Domestic Animal Model for Endometriosis: Surgical Induction in the Dog, Pigs, and Sheep**
Emy E Varughese, Gregg P Adams, Carlos EP Leonardi, Pritpal S Malhi, Paul Babyn, Mary Kinloch, Jaswant Singh
Journal of Endometriosis and Pelvic Pain Disorders **10**(2): 95-106 (2018)
<https://doi.org/10.1177/2284026518773942>
13. **Evaluation of Antibody Fragment Properties for Near-infrared Fluorescence Imaging of HER3-Positive Cancer Xenografts**
Ayman El-Sayed, Wendy Bernhard, Kris Barreto, Carolina Gonzalez, Wayne Hill, Landon Pastushok, Humphrey Fonge, C. Ronald Geyer
Theranostics **8**(17): 4856-4869 (2018)
14. **Evaluation of N-Succinimidyl S-Acetylthioacetate Ligand for Radiolabeling of Humanized Antibodies With ¹⁸⁸Rhenium**
Kevin J.H. Allen, Ruben Jiao, Mackenzie E. Malo, and Ekaterina Dadachova
Cancer Biotherapy and Radiopharmaceutics **33**(8): 349-358 (2018)
DOI: 10.1089/cbr.2018.2480
15. **Exploring Synergy Among New Generation Technologies: Small Modular Reactor, Energy Storage and Distributed Generation - A Strong Case for Remote Communities**
K. Joshi, B. Poudel, and R. Gokaraju
1st International Conference on Generation IV and Small Reactors, Ottawa, ON, Canada (2018)
16. **Fungal Strategies for Dealing with Environment- and Agriculture Induced Stresses**
Drauzio E.N. Rangel, Roger D. Finlay, John E. Hallsworth, Ekaterina Dadachova, Geoffrey Michael Gadd
Fungal Biology **122**: 602-612 (2018)
<https://doi.org/10.1016/j.funbio.2018.02.002>
17. **Fuzzy AHP-based Siting of Small Modular Reactors for Power Generation in the Smart Grid**
Reena Shrestha, Douglas Wagner, Irfan Al-Anbagi
IEEE Electrical Power and Energy Conference EPEC 2018 (2018)

18. **Helium Bubble Nucleation at Grain Boundaries and Its Influence on Intergranular Fracture**
W. Qin, A. K. Chauhan & J. A. Szpunar
PHILOSOPHICAL MAGAZINE: 1478-6435 (2018)
<https://doi.org/10.1080/14786435.2018.1551634>
19. ***In vivo* Evaluation of Free and Chelated Accelerator-produced Actinium-225 - Radiation Dosimetry and Toxicity Results**
Zewei Jiang, Ekaterina Revskaya, Darrell R. Fisher and Ekaterina Dadachova
Curr Radiopharm. **11**(3): 215-222 (2018)
DOI: 10.2174/1874471011666180423120707
20. **Is An Exclusion Zone Needed for a Small Modular Reactor?**
B.E.R. Lulik, D. deMontigny and E.M.A. Hussein
38th Annual Conference of the Canadian Nuclear Society and 42nd Annual CNS/CNA Student Conference
Sheraton Cavalier Hotel, Saskatoon, SK, Canada (2018 June 3-6)
21. **Morphological Changes in Melanized and Non-melanized Cryptococcus Neoformans Cells Post Exposure to Sparsely and Densely Ionizing Radiation Demonstrate Protective Effect of Mjelanin**
Mackenzie E. Malo, Ruth A. Bryan, Igor Shuryak, Ekaterina Dadachova
Fungal Biology **122**: 449-456 (2018)
<https://doi.org/10.1016/j.funbio.2017.08.010>
22. **Optimal Site Selection for a Nuclear Power Plant Considering Transportation and Accessibility Challenges**
Mina Mehran, Babak Mehran, and Satish Sharma
38th Annual Conference of the Canadian Nuclear Society and 42nd Annual CNS/CNA Student Conference Sheraton Cavalier Hotel, Saskatoon, SK, Canada (2018 June 3-6)
23. **Production Potential of Medical Isotopes from Natural Uranium Fission Processes**
Momina Butt, Chary Rangacharyulu, Dave Chorney, Jeff Zimmer
Journal of Radioanalytical and Nuclear Chemistry **317**(2): 891-896 (2018)
DOI: 10.1007/s10967-018-5967-1
24. **Radioimmunotherapy as a Novel Approach in HIV, Bacterial, and Fungal Infectious Diseases**
Muath Helal and Ekaterina Dadachova
Cancer Biotherapy and Radiopharmaceuticals **33** (8): 330-335 (2018)
DOI: 10.1089/cbr.2018.2481
25. **Resistance of an Antarctic Cryptoendolithic Black Fungus to Radiation Gives New Insights of Astrobiological Relevance**
Laura Selbmann, Claudia Pacelli, Laura Zucconi, Ekaterina Dadachova, Ralf Moeller, Jean-Pierre de Vera, Silvano Onofri
Fungal Biology **122**: 546-554 (2018)
26. **Site-Specific Fluorescent Labeling of Antibodies and Diabodies Using SpyTag/SpyCatcher System for In Vivo Optical Imaging Md.**
Kausar Alam, Ayman El-Sayed, Kris Barreto, Wendy Bernhard, Humphrey Fonge, C. Ronald Geyer
Mol Imaging Biol (2018)
DOI: 10.1007/s11307-018-1222-y

27. **Structure-function Analysis and Therapeutic Efficacy of Antibodies to Fungal Melanin for Melanoma Radioimmunotherapy**
J. D. Nosanchuk, Jeyakumar, A. Ray, E. Revskaya, Z. Jiang, R. A. Bryan, K. J. H. Allen, R. Jiao, M. E. Malo, B. L. Gómez, A. Morgenstern, F. Bruchertseifer, D. Rickles, G. B. Thornton, A. Bowen, A. Casadevall & E. Dadachova
Scientific Reports: **8**: 5466: (2018)
DOI:10.1038/s41598-018-23889-z
28. **Survival and Redox Activity of Friedmanniomyces Endolithicus, an Antarctic Endemic Black Meristematic Fungus, After Gamma Rays Exposure**
Claudia Pacelli, Ruth A. Bryan, Silvano Onofri, Laura Selbmann, Laura Zucconi, Igor Shuryak, Ekaterina Dadachova
Fungal Biology **122**: 1222-1227 (2018)
29. **The Effect of Protracted X-ray Exposure on Cell Survival and Metabolic Activity of Fast and Slow Growing Fungi Capable of Melanogenesis**
Claudia Pacelli,1,2 Ruth A. Bryan,2 Silvano Onofri ,1 Laura Selbmann,1 Laura Zucconi,1 Igor Shuryak3 and Ekaterina Dadachova4*
Environmental Microbiology Reports **10** (3): 255-263 (2018)
doi:10.1111/1758-2229.12632
30. **The Impact of Communication Infrastructure on Siting Small Modular Reactor: A Case Study Study in Saskatchewan, Canada**
M.O. Akerele, D. Wagner, and I. Al-Anbagi
38th Annual Conference of the Canadian Nuclear Society and 42nd Annual CNS/CNA Student Conference Sheraton Cavalier Hotel, Saskatoon, SK, Canada (2018 June 3-6)
31. **The second International Symposium on Fungal Stress: ISFUS**
Alene Alder-Rangel, Alexandre M. Bailao, Anderson F. da Cunha, Celia M.A. Soares, Chengshu Wang, Diego Bonatto, Ekaterina Dadachova, et al.
Fungal Biology **122**: 386-399 (2018)