MIRP Group

Publications List

2015-2022

A. Journal Papers

A.1. Lee, S., Qu, W., Alexoff, D.L., Shea, C., Kim, D., Schueller, M., Fowler, J.S. **Tetraethylene glycol promoted two-step, one-pot rapid synthesis of indole-3-[1-^{11}C] acetic acid**. *Tetrahedron Letters* 56 (3), pp.517-520 (2015). [BNL-107233-2014-JA]
https://www.sciencedirect.com/science/article/pii/S0040403914020681

A.2. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Measurement of $\Upsilon(1S + 2S + 3S)$ production in $p + p$ and Au + Au collisions at $\sqrt{s}_{NN}$ = 200 GeV.** *Phys. Rev. C* 91 (2) 024913 (2015).
https://journals.aps.org/prc/abstract/10.1103/PhysRevC.91.024913

A.3. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Search for dark photons from neutral meson decays in $p + p$ and d + Au collisions at $\sqrt{s}_{NN}$ = 200 GeV.** *Phys. Rev. C* 91 (3) 031901(R) (2015).
https://journals.aps.org/prc/abstract/10.1103/PhysRevC.91.031901

A.4. Aweda, T.A., Zhang, S., Mupanomunda,C., Burkemper, J., Heo, G.S., Bandara, N., Lin, M., Cutler, C.S., Cannon, C.L., Youngs, W.J., Wooley, K.L., Lapi, S.E. **Investigating the pharmacokinetics and biological distribution of silver-loaded polyphosphoester-based nanoparticles using ^{111}Ag as a radiotracer.** *Journal of Labelled Compounds and Radiopharmaceuticals* 58(6), pp. 234-241 (2015). http://onlinelibrary.wiley.com/doi/10.1002/jlcr.3289/full

A.5. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Centrality dependence of low-momentum direct-photon production in Au + Au collisions at $\sqrt{s}_{NN}$ = 200 GeV.** *Phys. Rev. C* 91 (6) 064904 (2015).
https://journals.aps.org/prc/abstract/10.1103/PhysRevC.91.064904

A.6. Medvedev, D.G., Mausner, L.F., Pile, P. **Tailoring medium energy proton beam to induce low energy nuclear reactions in 86SrCl2 for production of PET radioisotope 86Y**. *Applied Radiation and Isotopes*, Volume 101, pp. 20–26 (2015). [BNL-107650-2015-JARP]
http://www.sciencedirect.com/science/article/pii/S0969804315000652

A.7. Shea, C., Alexoff, D.L., Kim, D., Hoque, R., Schueller, M.J., Fowler, J.S., Qu, W. **Total cyanide mass measurement with micro-ion selective electrode for determination of specific activity of carbon-11 cyanide.** *Applied Radiation and Isotopes* 102, pp.48-54 (2015). [BNL-108378-2015-JA]
https://www.sciencedirect.com/science/article/pii/S0969804315300154

A.8. Lee, S.J., Fowler, J.S., Alexoff, D., Schueller, M., Kim, D., Nauth, A., Weber, C., Kim, S.W., Hooker, J.M., Ma, L., Qu, W. **An efficient and practical synthesis of [2-^{11}C]indole via superfast nucleophilic [^{11}C]cyanation and RANEY ®**

Nickel catalyzed reductive cyclization. *Organic and Biomolecular Chemistry* 13 (46), pp. 11235-11243 (2015). [BNL-111763-2016-JA] https://pubs.rsc.org/en/content/articlepdf/2015/ob/c5ob01654a

A.9. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Systematic study of azimuthal anisotropy in Cu + Cu and Au + Au collisions at $\sqrt{s}_{NN}$ = 62.4 and 200 GeV.** *Phys. Rev. C* 92 (3) 034913 (2015). https://journals.aps.org/prc/abstract/10.1103/PhysRevC.92.034913

A.10. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Systematic study of charged-pion and kaon femtoscopy in Au + Au collisions at $\sqrt{s}_{NN}$ = 200 GeV.** *Phys. Rev. C* 92 (3) 034914 (2015). https://journals.aps.org/prc/abstract/10.1103/PhysRevC.92.034914

A.11. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Measurements of elliptic and triangular flow in high-multiplicity ^{3}He + Au at $\sqrt{s}_{NN}$ = 200 GeV.** *Phys. Rev. Lett.* 115 (14) 142301 (2015). https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.115.142301

A.12. Karve, A.A., Alexoff, D., Kim, D., Schueller, M.J., Ferrieri, R.A., Babst, B.A. **In vivo quantitative imaging of photoassimilate transport dynamics and allocation in large plants using a commercial positron emission tomography (PET) scanner.** *BMC Plant Biol.* 15, 273 (2015). https://bmcplantbiol.biomedcentral.com/articles/10.1186/s12870-015-0658-3

A.13. Fitzsimmons, J.M., Medvedev, D.G., Mausner, L.F. **Specific activity and isotope abundances of strontium in purified strontium-82.** *J. Anal. At. Spectrom.* 31, 458 (2015). [BNL-112110-2016-JARP] https://pubs.rsc.org/-/content/articlepdf/2016/ja/c5ja00419e

A.14. Nino, M.N., McCutchan, E.A., Smith, S.V., Lister, C.J., Greene, J.P., Carpenter, M.P., Muench, L., Sonzogni, A.A., Zhu, S. **High-precision gamma-ray spectroscopy of cardiac PET imaging isotope Rb-82 and its impact on dosimetry.** *Phys. Rev. C* 93 (2), 024301 (2016). https://journals.aps.org/prc/abstract/10.1103/PhysRevC.93.024301

A.15. DeGraffenreid, A.J., Feng, Y.T., Wycoff, D.E., Morrow, R., Phipps, M.D., Cutler, C.S., Ketring, A.R., Barnes, C.L., Jurisson, S.S. **Dithiol aryl arsenic compounds as potential diagnostic and therapeutic radiopharmaceuticals**. *Inorganic Chemistry,* 55(16) pp. 8091-8098 (2016). http://pubs.acs.org/doi/abs/10.1021/acs.inorgchem.6b01175

A.16. DeGraffenreid, A.J., Feng, Y., Barnes, C., Ketring, A.R., Cutler, C., Jurisson, S.S. **Trithiols and their arsenic compounds for use in diagnostic and therapeutic applications.** *Nuclear Medicine and Biology* 43 (5), pp. 288-295 (2016). http://www.sciencedirect.com/science/article/pii/S0969805115300366

A.17. Gott, M.D., DeGraffenreid, A.J., Feng, Y., Wycoff, D.E., Embree, M.F., Cutler, C.S., Ketring, A.R., Jurisson, S.S. **Chromatographic separation of germanium and arsenic for the production of high purity ^{77}As**. *Journal of Chromatography A* 1441, pp. 68-74 (2016). http://www.sciencedirect.com/science/article/pii/S0021967316302199

A.18. Gott, M.D., Hayes, C.R., Wycoff, D.E., Balkin, E.R., Smith, B.E., Pauzauskie, P.J., Fassbender, M.E., Cutler, C.S., Ketring, A.R., Wilbur, D.S., Jurrisson, S.S., **Accelerator-based production of the ^{99m}Tc-^{186}Re diagnostic-therapeutic pair using metal disulfide targets (MoS_2, WS_2, OsS_2)**. *Applied Radiation and Isotopes,* 114, pp. 159-166 (2016). http://www.sciencedirect.com/science/article/pii/S096980431630197X

A.19. Balkin, E., Cutler, C., Gagnon, K., Strong, K. T., Smith, B. E., Dorman, E. F., Emery, R. C., Pauzauskie, P. J., Fassbender, M. E., Ketring, A. R., Jurisson, S. S., Wilbur, D. S. **Deuteron irradiation of W and WO_3 for production of high specific activity ^{186}Re: Challenges associated with thick target preparation**. *Applied Radiation and Isotopes,* 115, pp. 197-207 (2016). [BNL-113242-2016-JA] http://www.sciencedirect.com/science/article/pii/S0969804316302901

A.20. Zhao, Y., Pang, B., Luehmann, H., Detering, L., Yang, X., Sultan, D., Harpstrite, S., Sharma, V., Cutler, C.S., Xia, Y., Liu, Y. **Gold nanoparticles doped with ^{199}Au atoms and their use for targeted cancer imaging by SPECT.** *Advanced Healthcare Materials* 5(8), pp. 928-935 (2016). http://onlinelibrary.wiley.com/doi/10.1002/adhm.201500992/pdf

A.21. Kelly, J.M., Amor-Coarasa, A., Nikolopoulou, A., Kim, D., Williams Jr., C., Ponnala, S., Babich, J.W. **Synthesis and pre-clinical evaluation of a new class of high-affinity ^{18}F-labeled PSMA ligands for detection of prostate cancer by PET imaging.** *Eur. J. Nucl. Med. Mol. Imaging* 44 (4), pp.647-661 (2016). https://rd.springer.com/article/10.1007/s00259-016-3556-5

A.22. Vedvyas, Y., Shevlin, E., Zaman, M., Min, I.M., Amor-Coarasa, A., Park, S., Kwon, K.W., Smith, T., Luo, Y., Kim, D., Kim, Y., Law, B., Ting, R., Babich, J., Jin, M.M. **Longitudinal PET imaging demonstrates biphasic CAR T cell responses in survivors.** *JCI Insight* 1 (19), e90064 (2016). https://insight.jci.org/articles/view/90064

A.23. Xu, Y., Kim, S.W., Kim, D., Alexoff, D., Schueller, M.J., Fowler, J. **A mild, rapid synthesis of freebase [^{11}C]nicotine from [^{11}C]methyl triflate.** *Applied Radiation and Isotopes* 118, pp.62-66 (2016). [BNL-112719-2016-JA] https://www.sciencedirect.com/science/article/pii/S0969804316303025

A.24. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Measurements of double-helicity asymmetries in inclusive J/ψ production in longitudinally polarized p + p collisions at $\sqrt{s}$ = 510 GeV.** *Phys. Rev. D* 94 (11) 112008 (2016). https://journals.aps.org/prd/abstract/10.1103/PhysRevD.94.112008

A.25. Kothari, P., De, B.P., He, B., Chen, A., Chiuchiolo, M.J., Kim, A., Nikolopoulou, A., Amor-Coarasa, A., Dyke, J.P., Voss, H.U., Kaminsky, S.M., Foley, C.P.,

Vallabhajosula, S., Hu, B., DiMagno, S.G., Sondhi, D., Crystal, R.G., Babich, J.W., Ballon, D. **Radioiodinated capsids facilitate *in vivo* non-invasive tracking of adeno-associated gene transfer vectors.** *Nature Scientific Reports* 7, 39594 (2017). https://www.nature.com/articles/srep39594

A.26. Mastren, T., Radchenko, V., Bach, H.T., Balkin, E.R., Birnbaum, E.R., Brugh, M., Engle, J.W., Gott, M.D., Guthrie, J., Hennkens, H.M., John, K.D., Ketring, A.R., Kuchuk, M., Maassen, J.R., Naranjo, C.M., Nortier, M., Phelps, T.E., Jurisson, S.S., Wilbur, D.S., Fassbender, M.E. **Bulk production and evaluation of high specific activity ^{186g}Re for cancer therapy using enriched $^{186}WO_3$ targets in a proton beam.** *Nuclear Medicine and Biology*, 49, pp. 24-29 (2017). https://www.sciencedirect.com/science/article/pii/S0969805116304176

A.27. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Nonperturbative-transverse-momentum effects and evolution in dihadron and direct photon-hadron angular correlations in $p + p$ collisions at $\sqrt{s} = 510$ GeV.** *Phys. Rev. D* 95 (7) 072002 (2017). [BNL-113778-2017-JA] https://journals.aps.org/prd/abstract/10.1103/PhysRevD.95.072002

A.28. Al-Yasiri, A.Y., Khoobchandani, M., Cutler, C.S., Watkinson, L., Carmack, T., Smith, C.J., Kuchuk, M., Loyalka, S.K., Lugao, A.B., Katti, K.V. **Manfiferin functionalized radioactive gold nanoparticles (MGF-^{198}AuNPs) in prostate tumor therapy: Green nanotechnology of production, *in vivo* tumor retention and evaluation of therapeutic efficacy.** *Dalton Transactions* 46, pp. 14561-14571 (2017). http://pubs.rsc.org/en/content/articlelanding/2017/dt/c7dt00383h#!divAbstract

A.29. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Angular decay coefficients of J/ψ mesons at forward rapidity from $p + p$ collisions at $\sqrt{s} = 510$ GeV.** *Phys. Rev. D* 95 (9) 092003 (2017). https://journals.aps.org/prd/abstract/10.1103/PhysRevD.95.092003

A.30. Balkin, E.R., Gagnon, K., Dorman, E., Emery, R., Li, Y., Lake Wooten, A., Smith, B.E., Strong, K.T., Pauzauskie, P., Cutler, C.S., Ketring, A.R., Jurisson, S.S., Wilber, D.S. **Scale-up of high specific activity ^{186g}production using graphite-encased thick ^{186}W targets and demonstration of an efficient target recycling process**. *Radiochimica Acta* 105(12), pp. 1071-1081 (2017). [BNL-114854-2017-JA] https://www.degruyter.com/view/j/ract.2017.105.issue-12/ract-2017-2780/ract-2017-2780.xml

A.31. Radchencko, V., Engle, J.W., Medvedev, D.G., Maassen, J.M., Naranjo, C.M., Unc, G.A., Meyer, C.A.L., Mastren, T., Brugh, M., Mausner, L., Cutler, C.S., Birnbaum, E.R., John, K.D., Nortier, F.M., Fassbender, M.E. **Proton-induced production and radiochemical isolation of ^{44}Ti from scandium metal targets for ^{44}Ti/^{44}Sc generator development**. *Nuclear Medicine and Biology* 50, pp. 25-32 (2017). [BNL-113861-2017-JA] http://www.sciencedirect.com/science/article/pii/S0969805116304115

A.32. Adare, A., Kim, D., et.al. (PHENIX Collaboration). **Measurements of e^+e^- pairs from open heavy flavor in $p + p$ and d + Au collisions at $\sqrt{s}$NN = 200 GeV.**

Phys. Rev. C 96 (2) 024907 (2017). https://journals.aps.org/prc/abstract/10.1103/PhysRevC.96.024907

A.33. Kelly, J.M., Amor-Coarasa, A., Nikolopoulou, A., Wüstemann, T., Barelli, P., Kim, D., Williams Jr., C., Zheng, X., Bi, C., Hu, B., Warren, J.D., Hage, D.S., Babich, J.W. **Dual target binding ligands with modulated pharmacokinetics for endoradiotherapy of prostate cancer.** *J. of Nuclear Medicine* 58 (9), pp.1442-1449 (2017). http://jnm.snmjournals.org/content/58/9/1442.abstract

A.34. Fendler, W., Cutler, C. **More alpha than beta for prostate cancer?** *Journal of Nuclear Medicine,* 117, pp. 198333-1-8 (2017). [BNL-114321-2017-JA] http://jnm.snmjournals.org/content/early/2017/09/21/jnumed.117.198333.full.pdf+html

A.35. Coenen, H.H., Gee, A.D., Adam, M., Antoni, G., Cutler, C.S., Fujibayashi, Y., Jeong J.M., Mach, R.H., Mindt, T.L., Pike, V.W., Windhorst A.D. **Consensus nomenclature rules for radiopharmaceutical chemistry – setting the record straight.** *Nuclear Medicine and Biology,* 55, v-xi (2017). [BNL-114441-2017-JA] http://www.sciencedirect.com/science/article/pii/S0969805117303189

A.36. Radchenko, V., Mastren, T., Meyer, C.A.L., Ivanov, A.S., Bryanstev, V.S., Copping, R., Denton, D., Engle, J.W., Griswold, J.R., Murphy, K., Wilson, J.J., Owens, A., Wyant, L., Birnbaum, E.R., Fitzsimmons, J., Medvedev, D., Cutler, C.S., Mausner,m L.F., Nortier, M.F., John, K.D., Mirzadeh, S., Fassbender, M.E. **Radiometric evaluation of diglycolamide resins for the chromatographic separation of actinium from fission product lanthanides.** *Talanta* 175, pp. 318-324 (2017). https://www.sciencedirect.com/science/article/pii/S0039914017307798

A.37. Kelly, J.M., Amor-Coarasa, A., Nikolopoulou, A., Kim, D., Williams Jr., C., Vallabhajosula, S., Babich, J.W. **Assessment of PSMA targeting ligands bearing novel chelates with application to theranostics: Stability and complexation kinetic of $^{68}GA^{3+}$, $^{111}Lu^{3+}$ and $^{225}Ac^{3}$.** *Nuclear Medicine and Biology* 55, pp. 38-46 (2017). https://www.sciencedirect.com/science/article/pii/S096980511730121X

A.38. Fitzsimmons, J., Muench, L., Cutler, C.S. **Fishing for isotopes: capturing Beryllium-7 from Brookhaven LINAC isotope producer's 300 gallons of cooling water.** *ACS OMEGA* 3 (3), pp.3228-3234 (2018). https://pubs.acs.org/doi/10.1021/acsomega.7b01757

A.39. Wu, B.N., Liang, M., Zmich, N., Hatcher, J., Lall-Ramnarine, S.I., Wishart, J.F., Marconcelli, M., Castner, E.W. **Photoinduced bimolecular electron transfer in ionic liquids: Cationic electron donors.** *J. Phys. Chem. B* 122 (8) pp.2379-2388 (2018). https://pubs.acs.org/doi/abs/10.1021/acs.jpcb.7b12542

A.40. Feng, Y., Degraffenreid, A.J., Phipps, M.D., Rold, T.L., Okoye, N.C., Gallazzi, F.A., Barnes, C.L., Cutler, C.S., Ketring, A.R., Hoffman, T.J., Jurisson, S.S. **A trithiol bifunctional chelate for $^{72,77}As$: A matched pair theranostic complex with high in vivo stability.** *Nucl Med. Biol.* 61, pp. 1-10, (2018). [BNL-207952-

2018-JAAM]
https://www.sciencedirect.com/science/article/pii/S0969805117304341

A.41. Fitzsimmons, J., Torre, B., Foley, B., Copping, R., Hill, D.E., Mirzadeh, S., Cutler, C.S. **Evaluation of SynPhase Lanterns for capturing Ac-225 from bulk thorium.** Proc. 11th International Conference on Methods and Applications of Radioanalytical Chemistry (MARC XI), Kailua-Kona, HI, April 8-13, 2018. *Journal of Radioanalytical and Nuclear Chemistry* 318 (1), pp.477-483 (2018). https://link.springer.com/article/10.1007%2Fs10967-018-5997-8

A.42. Darienzo, R.E., Karius, K., Obla, N., Chang, C.C., Mironava, T. **Synthesis of coral-shaped gold nanoparticles for SERS sensing applications.** *Mat. Res. Exp.* 5 (9), 095003 (2018). https://iopscience.iop.org/article/10.1088/2053-1591/aad48d

A.43. Feng, Y., Phipps, M.D., Phelps, T.E., Okoye, N.C, Baumeister, J.E., Wycoff, D.E., Dorman, E.F., Wooten, A.L., Vlasenko, V., Wilbur, DS, Hoffman, T.J., Cutler, C.S., Ketring, A.R., Jurisson, S.S. **Evaluation of ^{72}Se/^{72}As generator and production of ^{72}Se for supplying ^{72}As as a potential PET imaging radionuclide.** *Applied Radiation and Isotopes* 143, pp. 113-122 (2019). [BNL-210844-2019-JAAM]
https://www.sciencedirect.com/science/article/pii/S0969804318305748?via%3Dihub

A.44. Degraffenreid, A.J., Medvedev, D.G., Phelps, T.E., Gott, M.D., Smith, S.V., Jurisson, S.S., Cutler, C.S. **Cross-section measurements and production of ^{72}Se with medium to high energy protons using arsenic containing targets.** *Radiochimica Acta,* published online 1/10/2019. [BNL-209663-2018-JAAM]
https://www.degruyter.com/view/j/ract.ahead-of-print/ract-2018-2931/ract-2018-2931.xml?format=INT

A.45. Sanders, V., Iskhakov, D., Abdel-Atti, D., Devany, M., Neary, M., Czerwinski, K., Francesconi, L. **Synthesis, characterization and biological studies of Rhenium, Technetium-99m, and Rhenium-188 Pentapeptides.** *Nucl. Med. Biol.* (2019).
https://www.sciencedirect.com/science/article/pii/S0969805118301471

A.46. Fitzsimmons, J., Griswold, J., Medvedev, D., Cutler, C.S., Mausner, L. **Defining processing times for Accelerator produced Ac-225 and other isotopes from proton irradiated thorium.** *Molecules* 24 (6), 1095 (2019). [BNL-213553-2020-JAAM] https://www.mdpi.com/1420-3049/24/6/1095

A.47. Coenen, H.H., Gee, A.D., Adam, M., Antoni, G., Cutler, C.S., Fujibayashi, Y., Jeong, J.M., Mach, R.H., Mindt, T.L., Pike, V.W., Windhorst, A.D. **Status of the 'consensus nomenclatura roles in the radiopharmaceutical sciences' initiative.** *Nucl. Med. Biol.* 71, pp. 19-22 (2019).
https://www.sciencedirect.com/science/article/pii/S0969805119301088?via%3Dihub

A.48. Fitzsimmons, J., Foley, B., Torre, B., Wilken, M., Cutler, C.S., Mausner, L., Medvedev, D. **Optimization of Cation exhange for the separation of Actinium-225 from radioactive Thorium, Radium-223 and other metals.** *Molecules* 24 (10), 1921 (2019). [BNL-211829-2019-JAAM] https://www.mdpi.com/1420-3049/24/10/1921

A.49. Fitzsimmons, J., Abraham, A., Catalano, C., Younes, A., Cutler, C.S., Medvedev, D. **The application of poorly crystalline silicotitanate in production of Ac-225.** *Scientific Reports* 9, 11808 (2019). [BNL-211944-2019-JAAM] https://www.nature.com/articles/s41598-019-48021-7

A.50. Cutler, C.S. **Economics of new molecular targeted personalized radiopharmaceuticals.** *Seminars in Nuclear Medicine* 49 (5), pp. 450-457 (2019). [BNL-211976-2019-JAAM] https://www.sciencedirect.com/science/article/pii/S0001299819300716

A.51. Darienzo, R.E., Mironava, T., Tannenbaum, R. **Raman signal enhancement by Quasi-fractal geometries of Au nanoparticles.** *J. Nanosci. Nanotech.* 19 (8), pp. 4740-4746 (2019). https://europepmc.org/article/med/30913781

A.52. Darienzo, R.E., Wang, J.M., Chen, O., Sullivan, M., Mironava, T., Kim, H., Tannenbaum, R. **Surface-enhanced raman spectroscopy characterization of breast cell phenotypes: Effect of nanoparticle geometry.** *ACS Appl. Nano Mat.* 2 (11) pp. 6960-6970 (2019). https://pubs.acs.org/doi/full/10.1021/acsanm.9b01436

A.53. Carter, L.M., Kesner, A.L., Pratt, E.C., Sanders, V.A., Massicano, A.V.F., Cutler, C.S., Lapi, S.E., Lewis, J.S. **The impact of positron range on PET resolution, evaluated with phantoms and PHITS Monte Carlo simulations for conventional and non-conventional radionuclides.** *Mol. Imag. Bio.* 22 (1), pp. 73-84 (2020). [BNL-211279-2019-JAAM] https://link.springer.com/article/10.1007%2Fs11307-019-01337-2

A.54. Darienzo, R.E., Chen, O., Sullivan, M., Mironava, T., Tannenbaum, R. **Au nanoparticles for SERS: Temperature-controlled nanoparticle morphologies and their Raman enhancing properties.** *Mat. Chem. Phys.* 240, 122143 (2020). https://www.sciencedirect.com/science/article/pii/S0254058419309605

A.55. Okamura, M., Beebe, E., Ikeda, S., Kanesue, T., Raparia, D., Muench, L., Karino, T., Haba, H. **Zr-96 beam production for isobar experiment in relativistic heavy ion collider.** *Rev. Sci. Instr.* 96 (1) 013319 (2020). [BNL-212494-2019-CPPJ] https://aip.scitation.org/doi/10.1063/1.5128618?af=R&feed=most-recent

A.56. Sanders, V., Cutler, C. **Radioarsenic: A promising theragnostic candidate for nuclear medicine.** *Nucl. Med. Biol.* 92, pp. 184-201 (2021). [BNL-216197-2020-JAAM] https://www.sciencedirect.com/science/article/pii/S0969805120300639

A.57. Chen, L.F., Sharma, S., Darienzo, R.E., Tannenbaum, R. **Decoration of cellulose nanocrystals with iron oxide nanoparticles.** *Mat. Res. Exp.* 7 (5) 055003 (2020). https://iopscience.iop.org/article/10.1088/2053-1591/ab8a82

A.58. Kelly, J., Amor-Coarasa, A., Ponnala, S., Nikolopoulou, A., Williams, C., Schlyer, D., Zhao, Y.Z., Kim D., Babich, J.W. **Trifunctional PSMA-targeting constructs for prostate cancer with unprecedented localization to LNCaP tumors.** *Eur. J. Nucl. Med. Mol. Imaging* 45 (11), pp. 1841-1851 (2020). https://link.springer.com/article/10.1007/s00259-018-4004-5

A.59. Kelly, J.M., Ponnala, S., Amor-Coarasa, A., Zia, N.A., Nikolopoulou, A., Williams, C., Schlyer, D.J., DiMagno, S.G., Donnelly, P.S., Babich, J.W. **Preclinical evaluation of a high-affinity sarcophagine-containing PSMA ligand for Cu-64/Cu-67-based theranostics in prostate cancer.** *Mol. Pharm.* 17 (6), pp. 1954-1962 (2020). https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.0c00060

A.60. Cutler, C.S., Bailey, E.A., Kumar, V., Schwarz, S.W., Bom, H.-S., Hatazawa, J., Paez, D., Orellana, P., Louw, L., Mut, F., Kato, H., Chiti, A., Frangos, S., Fahye, F., Dillehay, G., Oh, S.J., Lee, D.S., Lee, S.-T., Nunez-Miller, R., Bandhopadhyaya, G., Pradhan, P.K., Scott, A.M. **Global issues of radiopharmaceutical access and availability: A nuclear medicine global initiative project.** *J. Nucl. Med.* (2020). [BNL-216057-2020-JAAM] http://jnm.snmjournals.org/content/early/2020/07/09/jnumed.120.247197.short

A.61. Simos, N., Atoian, G., Bolotnikov, A., Sprouster, D., Tricoli, A., Medvedev, D., Palmer, M., Asner, D., Charitonidis, N., Mokhov, N., Kotsina, Z. **Radiation damage from energetic particles at GRad-level of SiO2 fibers of the Large Hadron Collider ATLAS Zero-Degree Calorimeter (ZDC).** *Nucl. Instr. Meth. A* 980, 164444 (2020). https://www.sciencedirect.com/science/article/pii/S016890022030841X

A.62. Ishida, T., Wakai, E., Makimura, S., Casella, A.M., Edwards, D.J., Prabhakarand, R., Senor, D.J., Ammigan, K., Bidhar, S., Hurh, P.G., Pellomoine, F., Densham, C.J., Fitton, M.D., Bennett, J.M., Kim, D., et al. RaDIATE Collaboration. **Tensile behavior of dual-phase titanium alloys under high-intensity proton beam exposure: Radiation-induced omega phase transformation in Ti-6Al-4V.** *J. Nucl. Mat.* 541, 154213 (2020). https://www.sciencedirect.com/science/article/pii/S0022311520310217

A.63. Hatcher-Lamarre, J.L., Sanders, V.A., Rahman, M., Cutler, C.S., Francesconi, L.C. **Alpha emitting nuclides for targeted therapy.** *Nucl. Med. Biol.* 92, pp. 228-240 (2021). https://www.sciencedirect.com/science/article/pii/S0969805120302146

A.64. Akam, E., Azevedo, C., Chaney, A.M., Dhanvantari, S., Edwards, K.J., Henry, K.E., Ibhagui, O.Y., Ijoma, J.N., Ikotun, O.F., Mack, K.N., Nagle, V.L., Pereira, P.M.R., Purcell, M.L., Sanders, V.A., Shokeen, M., Wang, X.W. **Visions by Women in Molecular Imaging Network: Antiracism and Allyship in Action,**

Mol. Imaging Biol. 23 (3), pp. 301-309 (2021). https://link.springer.com/article/10.1007/s11307-021-01597-x

A.65. Fox, M.B., Voyles, A.S., Morrell, J.T., Bernstein, L.A., Lewis, A.M., Batchelder, J.C., Birnbaum, E.R., Cutler, C.S., Medvedev, D.G., Nortier, F.M., O'Briend, E.M., Vermeulen, C. **Investigating high-energy proton-induced reactions on spherical nuclei: Implications for the preequilibrium exciton model.** *Phys. Rev. C* 103 (3), 034601 (2021). [BNL-221248-2021-JAAM] https://journals.aps.org/prc/abstract/10.1103/PhysRevC.103.034601

A.66. Phipps, M.D., Sanders, V.A., Deri, M.A. **Current state of targeted radiometal-based constructs for the detection and treatment of disease in the brain.** *Bioconj. Chem.* 32 (7), pp. 1331-1347 (2021). https://pubs.acs.org/doi/10.1021/acs.bioconjchem.1c00180

A.67. Fox, M.B., Voyles, A.S., Morrell, J.T., Bernstein, L.A., Batchelder, J.C., Birnbaum, E.R., Cutler, C.S., Koning, A.J., Lewis, A.M., Medvedev, D.G., Nortier, F.M., O'Brien, E.M., Vermeulen, C. **Measurement and modeling of proton-induced reactions on arsenic from 35 to 200 MeV.** *Phys. Rev. C* 104 (6), 064615 (2021). https://journals.aps.org/prc/abstract/10.1103/PhysRevC.104.064615

A.68. Vaughn, B.A., Loveless, C.S., Cingoranelli, S.J., Schlyer, D., Lapi, S.E., Boros, E. **Evaluation of Lu-177 and Sc-47 picaga-linked, prostate -specific membrane antigen-targeting constructs for their radiotherapeutic efficacy and dosimetry.** *Mol. Pharm.* 18 (12), pp. 4511-4519 (2021). https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.1c00711

A.69. Jurrison, S., Cutler, C.S., Charles, A., Khosrashahi, F.N., Ma, L., Minundradasa, C., Hoerres, R., Lydon, J.D., Kelley, S.P., Guthrie, J., Rotsch, D., Medvedev, D., Li, Y., Wilbur, D.S., Hennkens, H.M. **Evaluation of 186WS2 target material for production of high specific activity 186Re via proton irradiation: Separation, radiolabeling and recovery/recycling.** *Radiochim. Acta* (To be published mid-2022). [BNL-222703-2022-JAAM]

B. Books

C. Conference Papers

C.1. Smith, S.V., McCutchan, E., Gurdal, G., Lister, C., Muench, L., Nino, M., Sonzogni, A., Herman, M., Nobre, G., Cullen, C., Chillery, T., Chowdury, P., Harding, R. **Production of platinum radioisotopes at Brookhaven Linac Isotope Producer (BLIP).** Proc. ND2016: International Conference on Nuclear Data for Science and Technology, Bruges, Belgium, September 11-16, 2016. *EPJ Web Conf.* 146, 09029 (2017). [BNL-113184-2016-JA] https://www.epj-conferences.org/articles/epjconf/abs/2017/15/epjconf-nd2016_09029/epjconf-nd2016_09029.html

C.2. McConathy, J., Cutler, C.S., Akers, W.J., Allis, J., Cho, S.Y., Cook, J., Digby, W., Edwards, W.B., Flynt, L., Hammoud, D., Hoppin, J., Hostetler, E., Keshari, K.R., Martarello, L., Norenberg, J.P., Petry, N.A., Peterson, T., Pontecorvo, M., Reiner, T., Schindler, T.H., Schwarz, S., Shim, H., Staffaroni, A., Vasdev, N., Wester, H.J., Wu, A., Rogers, B. **Industry Partners Circle Meeting Summary.** 2016 IPC Meeting, Orlando, FL, January 27, 2016. [BNL-200082-2018-PUCP] https://bnlpubsconnect.bnl.gov/PDF?publicationId=200082

C.3. Ammigan, K., Amroussia, A., Avilov, M., Boehlert, C., Calviani, M., Casella, A., Densham, C., Fornasiere, E., Hurh, P., Ishida, T., Kuksenko, V., Lee, Y., Makimura, S., Mausner, L., Medvedev, D., et al. **The RaDIATE high-energy proton materials irradiation experiment at the Brookhaven Linac Isotop Producer Facility.** Proc. 8th Int. Particle Accelerator Conference (IPAC17), Copenhagen, Denmark, May 14-19, 2017 (2017). https://accelconf.web.cern.ch/ipac2017/papers/wepva138.pdf

C.4. Nayak, S., Bellavia, S., Chelminski, H., Cutler, C., Kim, D. **Engineering Design of Gallium-Nickel Target in Niobium Capsule, with a Major Focus on Determining the Thermal Properties of Gallium-Nickel Through Thermal Testing and FEA, for Irradiation at BLIP.** Proc. North American Particle Accelerator Conference (NAPAC2019), Lansing, MI, September 2-6, 2019 (2020). https://accelconf.web.cern.ch/napac2019/papers/mopls09.pdf

D. Abstracts

D.1. DeGraffenreid, A.J., Feng, Y., Ketring, A. R., Cutler, C. S., Barnes, C., Jurisson, S.S. **Synthesis, Characterization, and Radiolabelling of Trithiol Ligands with** Arsenic-77. *Journal of Labelled Compounds & Radiopharmaceuticals* 58, p. S58 (2015). Oral Presentation at 21st International Symposium on Radiopharmaceutical Science 2015 (ISRS 2015), Columbia, Missouri, USA, May 26-31, 2015. http://onlinelibrary.wiley.com/doi/10.1002/jlcr.3302_1/epdf

D.2. Gott, M.D, DeGraffenreid, A.J., Feng, Y.,Wycoff, D.E., Embree, M.F., Smith, S.V., Cutler, C. S., Ketring, A. R., Jurisson, S.S. **Development of a Rapid Isolation Method of 77As from GeO2 target material**. *Journal of Labelled Compounds & Radiopharmaceuticals* 58, p. S26 (2015). Oral Presentation at 21st International Symposium on Radiopharmaceutical Science 2015 (ISRS 2015),

Columbia, Missouri, USA, May 26-31, 2015 http://onlinelibrary.wiley.com/doi/10.1002/jlcr.3302_1/epdf

D.3. Wycoff, D.E., Sharma, R., Smith, S., Ketring, A., Cutler, C.S., Jurisson, S.S. **Separation of Cu-67 from an irradiated zinc target by electrolysis.** *Journal of Labelled Compounds & Radiopharmaceuticals* 58, p. S393 (2015) Poster presentation at the 2015 International Symposium on radiopharmaceutical Science 2015 (ISRS 2015) Columbia, Missouri, USA, May 26-31, 2015. http://onlinelibrary.wiley.com/doi/10.1002/jlcr.3302_1/epdf

D.4. Feng, Y., Degraffenreid, A., Wycoff, D., Embree, M., Smith, S., Cutler, C.S., Ketring, A., Jurisson, S.S. **^{77}As complexes for potential PET and radiotherapy.** Oral Presentation at 21st International Symposium on Radiopharmaceutical Science 2015 (ISRS 2015), Columbia, Missouri, USA, May 26-31, 2015. http://onlinelibrary.wiley.com/doi/10.1002/jlcr.3302_1/epdf

D.5. Cutler, C.S., Lattimer, J., Kelsey, J., Kuchuk, M., Bal, S., Katti, K. **Nano-radiosynovectomy for osteoarthritis treatment. (**Published Abstract/Poster) *Journal of Nuclear Medicine* 56(S3), p.363 (2015). http://jnm.snmjournals.org/content/56/supplement_3/363.short?utm_source=TrendMD&utm_medium=cpc&utm_campaign=J_Nucl_Med_TrendMD_0

D.6. Cutler, C.S., Al-Yasiri, A., Kuchuk, M., Loyalka, S., Watkinson, L., Carmack, T., Smith, C., Katti, K. **Comparison of *in vivo* uptake of radioactive gold nanoparticles formulated using phytochemicals. (**Published Poster) *Journal of Nuclear Medicine* 56(S3), p.1267 (2015). http://jnm.snmjournals.org/content/56/supplement_3/1267?related-urls=yes,56/supplement_3/1267

D.7. Ma, X., Cheng, K., Cutler, C., Bu, L., Sun, Y., Kang, F., Yang, W., Wang, J., Cheng, Z. **Cerenkov luminescence transfer based gold-198 nanocluster for tumor *in vivo* imaging and therapy.** CMIT Young Investigator Award Symposium **(**Published Poster) *Journal of Nuclear Medicine* 56(S3), p.61 (2015). http://jnm.snmjournals.org/content/56/supplement_3/61.abstract?sid=e778058b-5d40-413c-91aa-005d90c8012c

D.8. Feng, Y., Degraffenreid, A., Phipps, M., Cutler, C.S., Ketring, A.R., Jurisson, S.S. **^{77}As Complexes for potential PET and radiotherapy.** Presented at the 251st ACS National Meeting, San Diego, CA, March 13-17, 2016.

D.9. Griswold, J., Medvedev, D., Engle, J., Copping, R., Stracener, D., Mausner, L., Heilbronn, L., Mirzadeh, S. **PHITS Monte Carlo simulations for 225Ac production with 78-192 MeV proton incident on the 232Th targets compared with experimental effective cross sections.** *Abstracts of Papers of the American Chemical Society* 252, 33 (2016).

D.10. Medvedev, D. **Extraction chromatography aids medical isotope production.** *Abstracts of Papers of the American Chemical Society* 252, 50 (2016).

D.11. Mirzadeh, S., Copping, R., Radchenko, V., Fassbender, M., Murphy, K., Denton, D., Owens, A., Boll, R., Griswold, J., Fitzsimmons, J., Medvedev, D., Mausner, L. **Challenges in chemical separation of 225Ac produced via proton irradiation of 232Th target.** *Abstracts of Papers of the American Chemical Society* 252, 48 (2016).

D.12. Fitzsimmons, J., Muench, L. **Capture and release chemistry: Harvesting beryllium-7 from Brookhaven LINAC isotope producer's 320 gallons of cooling water.** *Abstracts of Papers of the American Chemical Society* 252, 53 (2016).

D.13. Medvedev, D, Radchenko, V., Muench, L., Degraffenried, A.J., Cullen, C., Mausner, L., Cutler, C.S. **Production of Ti-44 from Natural Scandium at Low Energy at BLIP.** 16th International Workshop on Targetry and Target Chemistry (WTTC16), Santa Fe, New Mexico, USA, August 28-31, 2016. (Oral Presentation)

D.14. Degraffenreid, A.J., Medvedev, D.G., Smith, S.V., Gott, M.D., Phelps, T.E., Jurrisson, S.S., Cutler, C.S. **Production of ^{72}Se/^{72}As in Clinically Relevant Quantities at the BLIP.** 16th International Workshop on Targetry and Target Chemistry (WTTC16), Santa Fe, New Mexico USA, August 28-31, 2016. (Oral Presentation)

D.15. Phelps, T.E., Wycoff, D.E., Gott, M.D., Degraffenreid, A.J., Medvedev, D.G., Cutler, C.S., Ketring, A.R., Embree, M.F., Jurisson, S.S. **Investigation of ^{72}Se Production via High Energy Proton Induced Reactions on Arsenic Metal Targets for Applications of a Clinical ^{72}Se/^{72}As Generator.** 16th International Workshop on Targetry and Target Chemistry (WTTC16), Santa Fe, New Mexico, USA, August 28-31, 2016. (Oral Presentation)

D.16. Phelps, T.E., Gott, M.D., Wycoff, D.E., Ketring, A.R., Balkin, E.R., Wilber, D.S., Fassbender, M.E., Cutler, C.S., Jurisson, S.S. **Production of ^{186}Re and ^{189}Re via proton induced reactions on natural tungsten disulfide-graphite, natural osmium disulfide, and natural osmium-graphite targets.** 16th International Workshop on Targetry and Target Chemistry (WTTC16), Santa Fe, New Mexico, USA, August 28-31, 2016. (Oral Presentation)

D.17. John, K., Birnbaum, E.R, Balkin, E.R., Coping, R., Cutler, C.S., Denton, D., Fassbender, M.E., Ferren, M.D., Fitzsimmons, J.M., Griswold, Krueger, J.W., Mastren, T., Mausner, L. F., Medvedev, D., Mirzadeh, S., Murphy, K., Nortier, M. F., Phillips, D. R., Runde, W.H., Stracener, D.W. **Targeted Alpha Therapy: The US DOE Tri-Lab (ORNL, BNL, LANL) Research Effort to Provide Accelerator-Produced ^{225}Ac for Radiotherapy.** American Physical Society Meeting, Washington, DC, January 28-31, 2017. http://adsabs.harvard.edu/abs/2017APS..APRB16001J

D.18. Degraffenreid, A.J., Nidzyn, R., Jenkins, B., Wycoff, D.E., Phelps, T.E., Goldberg, A., Medvedev, D.G., Jurisson, S.S., Cutler, C.S. **Purification of Cu-67 and Recovery of its Irradiated Zinc-68 Target.** 24th International Symposium on Radiopharmaceutical Sciences 2017. (ISRS 2017), Dresden, Germany, May 14-19, 2017. (Oral Presentation)

D.19. Degraffenreid, A.J., Medvedev, D.G., Phelps, T.E., Jurisson, S.S., Cutler, C.S. **Arsenic-72 as a Novel PET Imaging Agent: Optimized Production, Generator Development and Labeling.** 24th International Symposium on Radiopharmaceutical Sciences 2017 (ISRS 2017), Dresden, Germany, May 14-19, 2017. (Oral Presentation)

D.20. John, K.D., Balkin, E.R., Birnbaum, E.R., Boll, R.A., Brugh, A., Copping, R., Cutler, C.S., Denton, D.L., Fassbender, M.F, Felkner, K., Ferren, M.D., Fitzsimmons, J.M., Griswold, J.R., John, K.D., Krueger, J.W., Mastern, T., Mausner, L.F., Medvedev, D.G., Mirzadeh, S., Murphy, K.E., Nortier, F.M., Owens, A.C., Phillips, D.R., Runde, W.H., Stracener, D.W., Wyant, L.E. **US DOE Tri-lab research effort to provide accelerator poduced ^{225}Ac for radiotherapy: 2017 Update.** 10th International Symposium on Targeted Alpha Therapy 2017 (TAT 2017), Kanazawa, Japan, May 30- June 1, 2017. (Oral Presentation) https://www.urotoday.com/conference-highlights/tat-10/96596-tat-10-us-doe-tri-lab-research-effort-to-provide-accelerator-produced-ac225-for-radiotherapy-2017-update.html

D.21. Copping, R., Balkin, R.E., Birnbaum, E.R., Boll, R.A., Brugh, M., Cutler, C.S., Daver, S., Denton, D.L., Fassbender, M.E., Felker, K., Ferren, M.D., Fitzsimmons, J.M., Gaddis, K., Griswold, J.R., John, K.D., Krueger, J.W., Mastren, T., Mausner, L.F., Medvedev, D.G., Mirzadeh, S., Murphy, K.E., Nortier, M.F., Owens, A.C., Phillips, D.R., Radchenko, V., Runde, W.H., Stracener, D.W., Wyant, L.E. **Chemical Purification of Actinium-225 from Proton Irradiated Thorium Targets.** 10th International Symposium on Targeted Alpha Therapy 2017 (TAT 2017), Kanazawa, Japan, May 30- June 1, 2017. (Oral Presentation)

D.22. Phelps, T.E., Feng, Y., Degraffenreid, A.J., Wooten, A.L., Phipps, M.D., Wycoff, D.E., Baumeister, J.E., Ketring, A.R., Medvedev, D., Cutler, C.S., Wilbur, D.S., Jurisson, S.S. **Evaluation of ^{72}Se/^{72}As generators from ^{70}Ge and ^{75}As targets.** 22nd International Symposium on Radiopharmaceutical Sciences (iSRS 2017), Dresden, Germany, May 14-19, 2017. (Presentation)

D.23. Phelps, T.E., Ketring, A.R., Medvedev, D.M., Cutler, C.S., Wilbur, D.S., Jurisson, S.S. **Production of ^{186}Re and ^{189}Re from enriched ^{189}Os and ^{192}Os targets.** 22nd International Symposium on Radiopharmaceutical Sciences (iSRS 2017), Dresden, Germany, May 14-19, 2017. (Presentation)

D.24. Younes, A., Medvedev, D., Cutler, C. S., Fitzsimmons, J. **Capturing and purification of Beryllium-7 and Strontium-82 from BLIP cooling water**. 22nd International Symposium on Radiopharmaceutical Sciences (iSRS 2017), Dresden, Germany, May 14-19, 2017. [BNL-113605-2017-AB]

D.25. Younes, A., Cicek H., Burton-Pye B. P., Fitzsimmons J., Abergel R., Cutler C. S., Francesconi L. C. **Investigation of new approaches for radiochemical separation of Actinium-225 isotope from proton irradiated Th target**. 22nd International Symposium on Radiopharmaceutical Sciences (iSRS2017), Dresden, Germany, May 14-19, 2017. [BNL-113604-2017-AB]

D.26. Younes, A., Medvedev, D., Hubbard, K., Cutler, C. S., Fitzsimmons, J. **Recovery of Vanadium-48 from 320 gallons of BLIP cooling wate**r. 22nd International Symposium on Radiopharmaceutical Sciences (ISRS2017), Dresden, Germany, May 14-19, 2017. [BNL-113606-2017-AB].

D.27. Chen, L.F., Tannenbaum, R., Sharma, S., Darienzo, R. **Synthesis of cellulose nanowhiskers tethered with iron oxide nanoparticles.** 254th National Meeting and Exposition of the American Chemical Society (ACS) on Chemistry's Impact on the Global Economy, August 20-24, 2017, *Abstracts of Papers of the American Chemical Society* 254, 22 (2017).

D.28. Darienzo, R., Chen, O., Sullivan, M., Tannenbaum, R. **Seed mediated growth of highly monodisperse spherical gold nanoparticles.** 254th National Meeting and Exposition of the American Chemical Society (ACS) on Chemistry's Impact on the Global Economy, August 20-24, 2017, *Abstracts of Papers of the American Chemical Society* 254, 293 (2017).

D.29. Cutler, C.S., Degraffenried, A., Phelps, T.E., Muench, L., Sanders, V., Medvedev, D., Jurrison, S. **Long-lived PET generators** 9th International Conference on Isotopes, Doha, Qatar, November 13, 2017.

D.30. Pratt, E.C., Carter, L.M., Sanders, V.A., Degraffenreid, A., Muench, L., Cutler, C.S., Grimm, J., Lewis, J.S. **Selective chelator-free nanoparticle radiolabeling using ^{72}As.** 2017 World Molecular Imaging Congress, Philadelphia, PA, September 13-16, 2017.

D.31. Medvedev, D., Degraffenreid, A., Mausner, L.F., Cutler, C.S. **Isotope production with high energy high current proton beam at Brookhaven National Laboratory.** 13th International Topical Meeting on the Nuclear Applications of Accelerators, AccApp17, Quebec City, Quebec, Canada, July 31-August 4, 2017.

D.32. Cutler, C.S. **Development of Theranostics.** Annual Congress of the European Association of Nuclear Medicine (EANM) Vienna, Austria, October 21-24, 2017.

D.33. Hatcher, J., Younes, A., Fitzsimmon, J., Burton-Pye, B., Cicek, H., Francesconi, L., Cutler, C.S. **The Separation of Actinium from Thorium using Poloxometalates.** 255th ACS National Meeting, New Orleans, LA, March 18-22, 2018.

D.34. Sanders, V.A., Degraffenreid, A., Gao, M., Turkman, N., Kim, J., Cutler, C.S. **^{72}As as a Potential PET Isotope: From Production to *In Vivo* Imaging.** 255th ACS National Meeting, New Orleans, LA, March 18-22, 2018.

D.35. Fitzsimmons, J.F., Younes, A., Hubbard, K., Medvedev, Cutler, C.S. **Evaluation of solid supports for isotope harvesting at Brookhaven Linac Isotope Producer.** 255th ACS National Meeting, New Orleans, LA, March 18-22, 2018.

D.36. Queern, S.L., Manderbach, S.C., Cutler, C.S., Medvedev, D., Lapi, S.E., Fitzsimmons, J.M. **Inorganic ion-exchangers for radiochemical separations of Y/Zr and Sc-Ti.** 255th ACS National Meeting, New Orleans, LA, March 18-22, 2018. *Abstracts of Papers of the American Chemical Society* 255, 63 (2018).

D.37. Feng, Y.T., Phelps, T., Phipps, M., DeGraffenreid, A., Wooten, A., Okoye, N., Ketring, A., Cutler, C., Wilbur, D., Hoffman, T., Jurisson, S. **The development of 72,77As radiopharmaceuticals for potential PET imaging and therapy: production, radiochemistry, and biological evaluation.** 255th ACS National Meeting, New Orleans, LA, March 18-22, 2018, *Abstracts of Papers of the American Chemical Society* 255, 71 (2018).

D.38. John, K., Birnbaum, E., Boll, R., Browns, A., Brugh, M., Cooley, J., Copping, R., Cutler, C., Davern, S., Denton, D., Fassbender, M., Felker, K., Fitzsimmons, J., Griswold, J., Mastren, T., Medvedev, D., Mirzadeh, S., Murphy, K., Nortier, F.M., Olivas, E., Owens, A., Runde, W., Stracener, D., Wyant, L., Vermeulen, E. **US DOE Tri-lab research effort to provide accelerator-produced (225)Ac for radiotherapy: 2018 Update.** *J. Nucl. Med.* 59 (S1) 1044 (2018). http://jnm.snmjournals.org/content/59/supplement_1/1044.abstract

D.39. Sanders, V.A., Gao, M., Turkmann, N., Kim, J., Cutler, C.S. **Synthesis, Stability, and *In Vivo* Imaging of the Indirect Incorporation of Arsenic-72 on Therapeutic Antibodies.** 3rd International Symposium on Technetium and Other Radiometals in Chemistry and Nuclear Medicine, Bressanone, Italy, September 26-29, 2018. (Poster Session) https://www.sciencedirect.com/science/article/pii/S0969805119303142?via%3Dihub

D.40. Phipps, M., Medvedev, D., Francesconi, L., Deri, M., Cutler, C.S. **^{47}Sc targetry: investigating the production of 47Sc from 48Ti toward use in targeted radiotherapy**. 3rd International Symposium on Technetium and Other Radiometals in Chemistry and Nuclear Medicine. Bressanone, Italy, September 26-29, 2018. (Poster Session)

D.41. Fitzsimmons, J., Medvedev, D., Younes, A., Cutler, C.S., Mausner. L. **Defining isotope processing windows by understanding analytical data and impurities associated with accelerator produced isotopes at Brookhaven Linac Isotope Producer**. 11th International Conference on Methods & Applications of Radioanalytical Chemistry (MARC XI), Kailua-Kona, Hawaii, April 8-13, 2018. *American Nuclear Society Book of Abstracts* Log 522 (2018). http://www.marcconference.org/wp-content/uploads/marcxi_BookofAbstracts_20180410.pdf

D.42. Fitzsimmons, J., Torre, B., Hubbard, K., Foley, B., Copping, R., Medvedev, D., Younes, A., Cutler, C., Mausner, L. **Evaluating non-conventional materials for**

purification of isotopes from targets and BLIP cooling water. 11th International Conference on Methods & Applications of Radioanalytical Chemistry (MARC XI), Kailua-Kona, Hawaii, April 8-13, 2018. *American Nuclear Society Book of Abstracts* Log 521. http://www.marcconference.org/wp-content/uploads/marcxi_BookofAbstracts_20180410.pdf

D.43. John, K., Birnbaum, E., Boll, R., Brown, A., Brugh, M., Cooley, J., Copping, R., Cutler, C., Davern, S., Denton, D., Fassbender, M., Felker, K., Fitzsimmons, J., Griswold, J., Mastren, T., Medvedev, D., Mirzadeh, S., Murphy, K., Meiring Nortier, F., Olivas, E., Owens, A., Runde, W., Stracener, D., Wyant, L., Vermeulen, E. **US DOE Tri-lab research effort to provide accelerator-produced ^{225}Ac for radiotherapy: 2018 update.** (Published Poster) *Journal of Nuclear Medicine* 59 (S1), p.1044 (2018). http://jnm.snmjournals.org/content/59/supplement_1/1044.abstract?sid=e778058b-5d40-413c-91aa-005d90c8012c

D.44. Medvedev, D.G., DeGraffenreid, A., Sanders, V.A., Kurczak, S.O., Muench, L., Bellavia, S., Cullen, C., Cutler, C.S., Mausner, L.F. **Challenges and opportunities in radioisotope research and development irradiations at Brookhaven Linac Isotope Producer.** Honor Symposium for Dr. Leonard Mausner. 256th ACS National Meeting & Exposition, Boston, Massachusetts, August 19-23, 2018. *Abstracts of Papers of the American Chemical Society* 256, 10-NUCL (2018).

D.45. Perez, A., Uzzi, B., Cutler, C. **Making radiochemistry meaningful to high school students through engagement at a national laboratory.** 256th ACS National Meeting & Exposition, Boston, Massachusetts, August 19-23, 2018. *Abstracts of Papers of the American Chemical Society* 256, 77-NUCL (2018).

D.46. Griswold J., Medvedev, D., Copping, R., Mausner, L., Heilbronn, L., Mirzadeh, S. **PHITS and MCNP6 Monte Carlo simulations for the 232Th(p,4n) 229Pa reaction cross.** 256th ACS National Meeting & Exposition, Boston, Massachusetts, August 19-23, 2018. *Abstracts of Papers of the American Chemical Society* 256, 9-NUCL (2018).

D.47. Medvedev, D., Fitzsimmons, J., Cooley, J., Kurczak, S., Mausner, L., Cutler, C.A., Pile, P., Nortier, F., John, K. **Scaling up Ac-225 production at Brookhaven Linac Isotope Producer using multi target Thorium target stack.** 17th Workshop on Targetry and Target Chemistry, (17WTT), Coimbra, Portugal, August 27-31, 2018.

D.48. Medvedev, D.G., Sanders, V., Degraffenreid, A., Muench, L., Goldberg, A., Cutler, C.S. **Improving specific activity of Cu-67 at Brookhaven Linac Isotope Producer**. 17th Workshop on Targetry and Target Chemistry, (17WTT), Coimbra, Portugal, August 27-31, 2018.

D.49. Nikolopoulou, A., Corwin, C., Kang, Y., Kothari, P., Nunez-Santos, M., Kim, D., Vallabhajosula, S., Figueiredo Perereira, M., Babich, J. **Tracking PGJ2-induced inflammation in rat brain using µPET and TSPO ligand [^{11}C] (R)PK11195.**

Journal of Nuclear Medicine 57 (Suppl. 2) 1803 (2016). http://jnm.snmjournals.org/content/57/supplement_2/1803

D.50. Alexoff, D., Kim, D., Lee, H., Padakanti, P., Schmitz, A., Page, A., Ploessl, K., Zha, Z., Mach, R., Kung, H. **A rapid prototyping platform for radiochemistry automation: experience with Ga-68 labeling.** *Journal of Nuclear Medicine* 59 (Suppl. 1) 1037 (2018). Poster Session. http://jnm.snmjournals.org/content/59/supplement_1/1037

D.51. Sanders, V.A., Bodner, V.S., Vaughn, B., Huclier, S., Boros, E., Deri, M.A., Medvedev, D.G., Cutler, C.S. **Radiolabeling NOTA derivatives with generator eluted Scandium-44.** 7th Early Career Researcher Symposium. Upton, NY, October 11, 2018. Poster presentation. https://www.bnl.gov/ecrs2018/files/pdf/program.pdf

D.52. Kim, D., Benmerrouche, M., Cutler, C.S. **FLUKA simulation of Ac-225 production with a medical cyclotron.** Proc. 11th International Symposium on Targeted Alpha Therapy, Ottawa, Canada, April 1-5, 2019. *J. Imag, Rad. Sci.* 50 (4) Suppl. 1, p. S12 (2019). [BNL-211319-2019-COAB]

D.53. Huclier, S., Medvedev, D., Cutler, C. **Radiochemical separation/purification for establishing a Ti-44/Sc-44 generator.** Proc. 23rd Int. Symposium on Radiopharmaceutical Sciences (ISRS 2019), Beijing, China, May 26-32, 2019, *J. Labell. Comp.* 62 (S1), pp. S562-S563, P-390 (2019). https://onlinelibrary.wiley.com/toc/10991344/2019/62/S1

D.54. Phipps, M., Sanders, V., Younes, A., Medvedev, D., Lewis, J., Cutler, C., Francesconi, L., Deri, M. **HOPO: A potential chelator for use in Sc-44 and Sc-47 based theranostic agents.** Proc. 23rd Int. Symposium on Radiopharmaceutical Sciences (ISRS 2019), Beijing, China, May 26-32, 2019, *J. Labell. Comp.* 62 (S1), pp. S300-S301, P-145 (2019). https://onlinelibrary.wiley.com/toc/10991344/2019/62/S1

D.55. Sanders, V., Pratt, E., Bhupathiraju, N.V.S.D., Carter, L., Ferdous, J., Marquez-Nostra, B., Schlyer, D., Lewis, J., Francesconi, L., Cutler, C. **227th labeled 3,4,3-(LI-1,2-HOPO): Optimized synthesis, biological distribution and dosimetry.** *J. Nucl. Med.* 62 (Suppl. 1), 1482 (2021). [BNL-222560-2021-COAB] https://jnm.snmjournals.org/content/62/supplement_1/1482

D.56. Baumeister, J., Medvedev, D., Cutler, C., Jurisson, S., Hennkens, H., Li, Y.W., Wilbur, D.S. **Extraction chromatographic separation of selenium and arsenic for accelerator target processing.** *Nucl. Med. Biol.* 96-97 (S), pp. S92-S93, SP-101 (2021). https://www.sciencedirect.com/science/article/pii/S0969805121004182

D.57. Baumeister, J., Medvedev, D., Cutler, C., Jurisson, S., Hennkens, H., Li, Y.W., Wilbur, D.S. **Production of Sn-117m using Sb alloy target.** *Nucl. Med. Biol.* 96-97 (S), p. S23-S24, SSP-16 (2021). https://www.sciencedirect.com/science/article/pii/S0969805121003036

D.58. Charles, A., Khosroshahi, F., Guthrie, J., Chyan, M.K., Wong, R., Dorman, E., Medvedev, D., Lydon, J., Cutler, C., Li, Y.W., Wilbur, D.S., Hennkens, H., Jurisson, S. **A comparison of rhenium isolation and tungsten recovery methods from bulk tungsten targets.** *Nucl. Med. Biol.* 96-97 (S), pp. S104, SP-123 (2021). https://www.sciencedirect.com/science/article/pii/S0969805121004406

D.59. Ma, L., Khosroshahi, F., Feng, T.Y., Manring, S., Gallazzi, F., Li, Y.W., Wilbur, D.S., Medvedev, D., Cutler, C., Hennkens, H., Jurisson, S. **Synthesis and characterization of new hydrophilic trithiol chelates and their radioarsenic complexes.** *Nucl. Med. Biol.* 96-97 (S), p. S30, SSP-25 (2021). https://www.sciencedirect.com/science/article/pii/S0969805121003127

E. Internal Notes and Other

E.1. Cutler, C.S. **Radiopharmacology: recent developments in the field of radiopharmaceuticals**. *The Quarterly Journal of Nuclear Medicine and Molecular Imaging* 59(3), pp. 239-240 (2015). http://www.minervamedica.it/en/journals/nuclear-med-molecular-imaging/article.php?cod=R39Y2015N03A0239

E.2. Coenena, H.H., Gee, A.D., Adam, M., Antoni, G., Cutler, C.S., Fujibayashi, Y., Jeong, J.M., Mach, R.H., Mindt, T.L., Pike, V.W., Windhorst, A.D. **International consensus radiochemistry nomenclature guidelines.** *Nuklearmedizin – Nucl. Med.* 57 (1), pp. 40-41 (2018). https://www.thieme-connect.de/products/ejournals/abstract/10.1055/s-0038-16365633

E.3. Kim, D., Benmerrouche, M., Cutler, C. **Activation of TH-232 target using FLUKA simulation code.** C-A/BLIP/001 [BNL-210938-2019-TECH] https://bnlpubsconnect.bnl.gov/PDF?publicationId=210938Assessment

E.4. Pellemoine, F., Barbier, C., Sun, Y., Ammigan, K., Bidhar, S., Zwaska, B., McClintock, D., Taller, S., Winder, D., Cutler, C.S., et al. **Irradiation facilities and irradiation methods for high power target.** *2022 Snowmass Summer Study* (2022). https://arxiv.org/abs/2203.08239