TRIUMF

ANNUAL REPORT
SCIENTIFIC ACTIVITIES
2000

ISSN 1492-417X

CANADA'S NATIONAL LABORATORY
FOR PARTICLE AND NUCLEAR PHYSICS

OPERATED AS A JOINT VENTURE

MEMBERS:

THE UNIVERSITY OF ALBERTA
THE UNIVERSITY OF BRITISH COLUMBIA
CARLETON UNIVERSITY
SIMON FRASER UNIVERSITY
THE UNIVERSITY OF VICTORIA

ASSOCIATE MEMBERS:

THE UNIVERSITY OF MANITOBA
L'UNIVERSITÉ DE MONTRÉAL
QUEEN'S UNIVERSITY
THE UNIVERSITY OF REGINA
THE UNIVERSITY OF TORONTO

UNDER A CONTRIBUTION FROM THE
NATIONAL RESEARCH COUNCIL OF CANADA

OCTOBER 2001

Appendix E

LIFE SCIENCES PROJECT PROPOSALS

The following lists life sciences project proposals received up to the end of 2000 (missing numbers cover proposals that have been withdrawn or replaced by later versions, rejected, or combined with another proposal). Page numbers are given for those experiments which are included in this Annual Report. Page

LS0. PET facilities [active], K.R. Buckley, E.T. Hurtado, E. Piccioni *(TRIUMF)*, C. English, S. Jivan, M. McNamara, C. Williams *(UBC–TRIUMF)* 91

LS1. Attenuation maps for quantitative SPECT [completed], A. Celler *(UBC–VH&HSC)*, S. McFarland *(UBC)*, S. Barney, M. Limber *(SFU)*

LS2. Synthesis of ^{18}F-glycosides as potential imaging agents for the study of glycosidase activity in the brain [active], M.J. Adam *(TRIUMF)*, D. Lyster *(VH&HSC)*, G. Matte *(Halifax H.)* 92

LS3. Synthesis of radiopharmaceuticals for positron emission tomography [active], M.J. Adam, K.R. Buckley, E.T. Hurtado, J. Huser, S. Jivan, J.-M. Lu, T.J. Ruth *(TRIUMF)* 93

LS4. TR13 targets for PET radioisotope production [active], K. Buckley, T. Hurtado, T.J. Ruth, S.K. Zeisler *(TRIUMF)* 94

LS5. Production and on-line separation of ^{124}I from enriched tellurium [inactive], W.Z. Gelbart, E.T. Hurtado, T.J. Ruth, N.R. Stevenson, S.K. Zeisler *(TRIUMF)*, R.R. Johnson *(UBC)*

LS6. Bone calcium resorption studies in pre- and peri-menopausal women using accelerator mass spectrometry [completed], R.R. Johnson, A. Priestman, J.C. Prior *(UBC)*, A. Altman, W.Z. Gelbart, V. Sossi *(TRIUMF)*, D. Berkovits, S. Ghelberg, M. Paul *(Racah Inst., Hebrew U. Jerusalem)*, L.M. Shulman *(Chaim Sheba Med. Centre)*, R. Chechik *(Weizmann Inst.)*, E. Venzel *(SFU)*

LS7. PET 3D data quantification and integration into a research clinical environment [completed], K.S. Morrison, T.J. Ruth, V. Sossi, M.W. Stazyk *(UBC–TRIUMF)*, K.R. Buckley *(TRIUMF)*, J.S. Barney *(VH&HSC)*, D. Sirota, B.J. Snow *(UBC)*

LS8. Radiotracers for the physical and biosciences [active], L. Buchmann, T.J. Ruth, S.K. Zeisler *(TRIUMF)*, A.D.M. Glass, R.R. Johnson, M. Lowe, C.E.R. Orvig *(UBC)*, T.F. Budinger *(Lawrence Berkeley National Lab)* 94

LS10. Biological evaluation of radiohalogenated DNA aptamers [completed], H. Dougan *(TRIUMF)*, J.B. Hobbs, D.M. Lyster *(UBC)*, J.I. Weitz *(McMaster U.)* 96

LS11. Development of single photon imaging agents [inactive], D. Lyster *(UBC–VH&HSC)*, L. Alcorn, M. Hampong, T. Lutz, C. Vo *(UBC)*

LS12. A simulation platform for the design of position encoding multicrystal detectors [completed], A. Altman, C. Moisan, J.G. Rogers *(TRIUMF)*, E. Hoskinson, G. Tsang *(UBC)*

LS13. Utility of 2-[F-18]-fluoro-2-deoxy-d-glucose SPECT imaging in the evaluation of patients with solitary pulmonary nodules [completed], A. Celler, D. Lyster, D. Worsley *(UBC)*, M. Adam *(TRIUMF)*

LS14. Production of ^{127}Xe from cesium with 90–110 MeV protons [inactive], D. Pearce, J. Vincent *(TRIUMF)*

LS15. Investigation of frame realignment on the reproducibility of ^{18}F-6-fluorodopa positron emission tomography [inactive], K.S. Morrison, T.J. Ruth *(UBC–TRIUMF)*, B.J. Snow *(UBC)*

LS17. Table-top radiocarbon facility [inactive], W. Gelbart, R.B. Schubank *(TRIUMF)*, E. Venczel *(UBC–SFU)*, S. Calvert, R.R. Johnson, J. Nagel, T. Peterson, V. Sossi *(UBC)*, D.E. Nelson *(SFU)*, J. Prior, K. Schoenholzer, R. Sutton, V. Walker *(UBC–VH&HSC)*, R. Middleton *(U. Pennsylvania)*, M. Paul *(Hebrew U. Jerusalem)*, J. Clague, L. Jackson, J. Lutenauer, D. Templeman-Kluit *(Geological Survey of Canada)*, R.N. McNeely, J.-S. Vincent *(GSC Ottawa)*, V. Barrie *(Pacific Geoscience Center)*, D. Prior, K.R. Robertson, G. Vilks *(Bedford Inst. Oceanography)*, R. Brown, S. Wang *(Elemental Research Inc.)*, J. Vogel *(Lawrence Livermore National Lab)*, A.E. Litherland *(U. Toronto)*, S. Dias, S. Sood *(Ontario Hydro)*, H.R. Andrews, R.M. Brown, R.J. Cornett *(AECL)*, D.B. Carlisle *(Environment Canada)*, J. Carron, A. Kabir, R.C.J. Wilkinson *(Canadian Centre for Inland Waters)*, R. Gephart, P. Molton, D. Robertson *(Batelle Pacific Northwest Labs)*

LS18. Cooperative development of ^{82}Sr-Rb generators for human use in Canada [completed], J. Vincent *(TRIUMF)*, R. Beanlands *(U. Ottawa Heart Inst.)*, B. Bowen *(McMaster U.)*, W. Dickie *(Nordion Int.)*

LS19. An ^{15}O-water generator: a feasibility study [inactive], K.R. Buckley, T.J. Ruth *(TRIUMF)*

LS20. Prototype heat-pipe water target for ^{18}F-production [inactive], K.R. Buckley, E.T. Hurtado, T.J. Ruth *(TRIUMF)*, J.W. Lenz *(private consultant)*