Fedoruk Centre
SYLVIA FEDORUK CANADIAN CENTRE FOR NUCLEAR INNOVATION

From Vision to Impact

SYLVIA FEDORUK CANADIAN CENTRE FOR NUCLEAR INNOVATION INC.

ANNUAL REVIEW 2014-2015

- Medicine
- Materials
- Energy
- Environment

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ABOUT THE **FEDORUK CENTRE**

Located on the University of Saskatchewan campus in Saskatoon, the Sylvia Fedoruk Canadian Centre for Nuclear Innovation (Fedoruk Centre) is an independent, not-for-profit corporation that is a wholly-owned subsidiary of the University of Saskatchewan. The Fedoruk Centre is funded by Innovation Saskatchewan.

Find out more at: **www.fedorukcentre.ca**

Twitter: @FedorukCentre

Facebook.com/FedorukCentre

MESSAGE FROM THE CHAIR

The 2014-2015 edition of *From Vision to Impact* recounts some of the key steps that the Sylvia Fedoruk Canadian Centre for Nuclear Innovation has completed along our path, building capacity in Saskatchewan for nuclear research, development and training.

In October, the Fedoruk Centre announced its largest investment to date, awarding $5.2 million to establish a multidisciplinary program in nuclear imaging, consisting of two Fedoruk Centre Chairs at the University of Saskatchewan, a third at the University of Regina, plus resources to support research and training at both universities as well as Saskatchewan Polytechnic. The Saskatchewan Program for Nuclear Imaging (SPNI) will create a core of talented research leaders who will help to shape the Saskatchewan Centre for Cyclotron Sciences as a powerful resource for scientific research about biological processes in plants, animals and humans. The expected outcomes from the Fedoruk Centre's investments in SPNI and the cyclotron include innovation and advancements in the diagnosis and treatment of diseases such as cancer, and contributions to global food security.

This past fiscal year also marked the funding of the twenty-fifth research project by the Fedoruk Centre, bringing the total investment by the Centre to close to $3.9 million, supporting Saskatchewan-led research in nuclear medicine, materials science, energy and safety, society and the environment. These projects have not only advanced knowledge and trained some this province's next generation of scientists and engineers, but also enabled Saskatchewan researchers to make connections with experts from across Canada and internationally.

This has been an exciting year for the Sylvia Fedoruk Canadian Centre for Nuclear Innovation. The Board is confident that the Fedoruk Centre is on track to enabling positive impacts from nuclear innovation for Saskatchewan, Canada and the world.

John Root, PhD
Chair of the Board

MESSAGE FROM THE EXECUTIVE DIRECTOR

As it nears the midpoint of its initial mandate, the Fedoruk Centre has made some major strides. In December we celebrated the completion of construction of the Saskatchewan Centre for Cyclotron Sciences, a state of the art $25-million facility that will propel new research related to diagnosing and treating diseases in humans, animals and plants, as well as produce radioisotopes for clinical use.

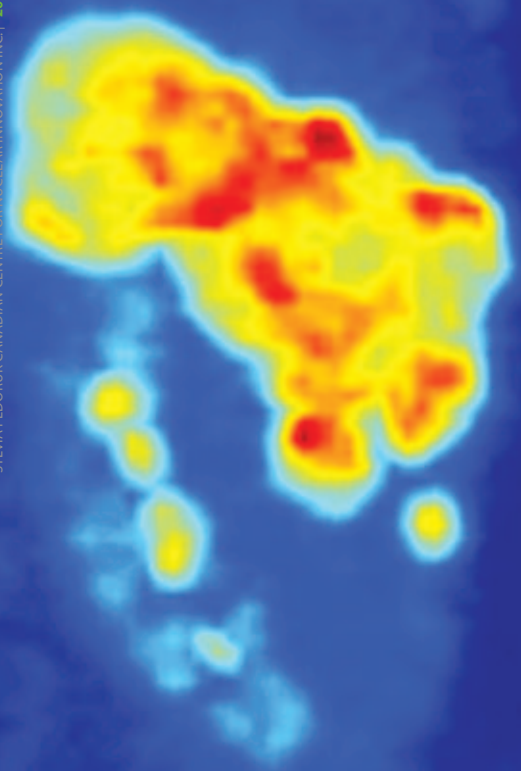
The Fedoruk Centre is also active on the national and international stages, drawing attention to Saskatchewan's renewed role in the future of nuclear development and innovation in Canada and beyond. This can be seen in both the collaborations being formed between the province's researchers and the broader nuclear community, as well as inclusion of the Fedoruk Centre in high-level discussions about the future direction of nuclear research and development in our country.

Closer to home, the Fedoruk Centre is becoming more engaged in conversations with Saskatchewan people about issues related to nuclear development. I would like to invite anyone interested in nuclear topics, regardless of their opinion, to become part of the dialogue – by visiting our website, interacting on social media, or participating in one of our public events.

Neil Alexander, PhD
Executive Director

Neil Alexander speaks with MP Brad Trost and Saskatchewan minister responsible for innovation Jeremy Harrison at the opening of the Saskatchewan Centre for Cyclotron Sciences.

GOVERNANCE



BOARD OF DIRECTORS

DIRECTOR	AFFILIATION
Dr. John Root, *Chair*	Director, Canadian Neutron Beam Centre
Dr. Karen Chad, *Vice-Chair*	Vice-President Research, University of Saskatchewan
Dr. William Kupferschmidt	Vice-President, R & D Canadian Nuclear Laboratories
Mr. Engin Özberk	Executive Director and Senior Technical Advisor, International Minerals Innovation Institute
Mr. Greg Fowler	Vice-President Finance and Resources, University of Saskatchewan
Mr. Donald Deranger	Aboriginal Advisor on Governance, Unity and Business Development
Mr. Thomas Kishchuk	Vice-President Operational Support, Federated Cooperatives Limited
Mr. David Katz	Chief Science and Policy Officer, Innovation Saskatchewan
Dr. Brent Lewis *(to June 2015)*	Dean and Professor, Faculty of Energy Systems and Nuclear Science, University of Ontario Institute of Technology
Dr. Donald Wilson	Nuclear Medicine Physician and Radiation Oncologist, British Columbia Cancer Agency
Dr. Esam Hussein	Dean, Faculty of Engineering and Applied Science, University of Regina

PROJECT ADVISORY COMMITTEE

Made up of prominent experts from outside of Saskatchewan, the Project Advisory Committee works with subject matter experts to review and rank project proposals received by the Fedoruk Centre.

Duane Bratt, PhD	Mount Royal University Dept. of Policy Studies (Chair)
Albert Driedger, MD, PhD, FRCPC	University of Western Ontario, Victoria Hospital (emeritus), London
John Luxat, PhD, PENg	McMaster University Engineering Physics Dept.

THE FEDORUK CENTRE'S STRATEGIC PLAN

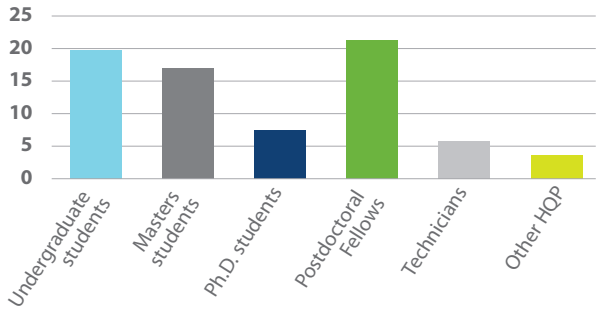
SASKATCHEWAN'S FUTURE IN NUCLEAR INNOVATION: STRATEGIC PLAN 2020 – SUMMARY

VISION	To place Saskatchewan among global leaders in nuclear research, development and training through investment in partnerships with academia and industry for maximum societal and economic benefit.
MISSION	The Sylvia Fedoruk Canadian Centre for Nuclear Innovation meets the needs of the people of Saskatchewan and Canada by making investments in programs and projects, managing facilities, and facilitating long-lasting partnerships that will deliver positive impacts in nuclear science and technology.
VALUE PROPOSITION	The Fedoruk Centre enables Saskatchewan universities to place themselves among global leaders in nuclear research and training, creating conditions for the province to advance beyond the resource economy of uranium mining into the value-added areas of nuclear innovation in medicine, materials research, power generation and environmental stewardship.
GUIDING VALUES	• **Excellence:** The Fedoruk Centre's activities and investment decisions ensure the achievement of excellence in scientific innovation and community engagement. • **Collaboration:** The Fedoruk Centre's activities and investments facilitate the creation of partnerships – in Saskatchewan, Canada and the world – among experts in academia, industry, governments and the public. • **Accountability:** The Fedoruk Centre fosters a culture of responsibility and voluntary participation in its activities and investments, while demonstrating accountability to the people of Saskatchewan, Canada and the world. • **Transparency:** The Fedoruk Centre ensures an open and accessible environment in its decision-making and business processes.
GOALS	1. Build Nuclear Expertise and Capacity 2. Enhance Innovation 3. Engage Communities and Increase Understanding 4. Ensure sustainability of resources and infrastructure
OUTCOME	By 2020, the Fedoruk Centre will establish a research and innovation capacity to support a vibrant nuclear sector in Saskatchewan.

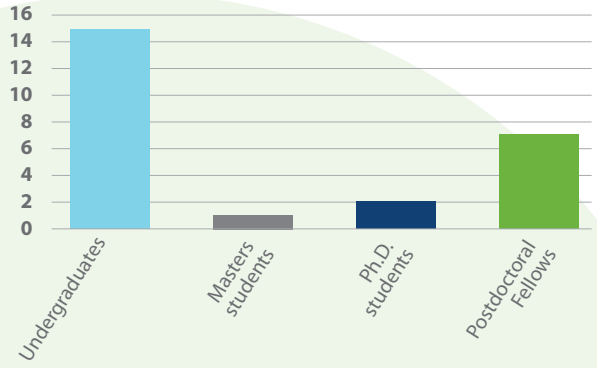
Building nuclear expertise and capacity

- The largest Fedoruk Centre investment to date was made in October, awarding $5.2 million nuclear imaging program, consisting of two Fedoruk Chairs at the U of S, a third at the University of Regina.
- The 25th research project was funded, reaching a total investment of close to $3.9 million, which leveraged funding and in-kind contributions from elsewhere for a total value over $7 million.
- The end of construction of the Saskatchewan Centre for Cyclotron Sciences was marked in December. Regulatory commissioning of the machine and laboratory facilities is now well underway.

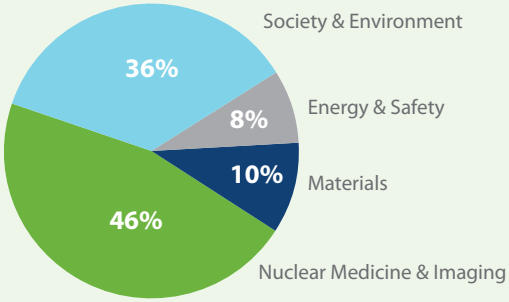
Highly qualified personnel trained and employed



Highly qualified personnel who have completed their studies



Fedoruk Centre Project Funding: $3.9 million in 25 projects

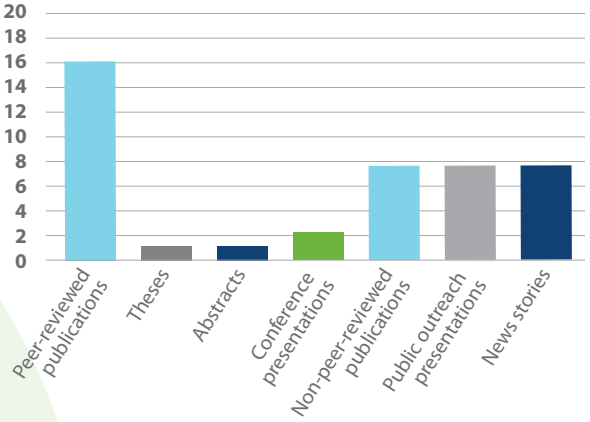


Enhancing innovation

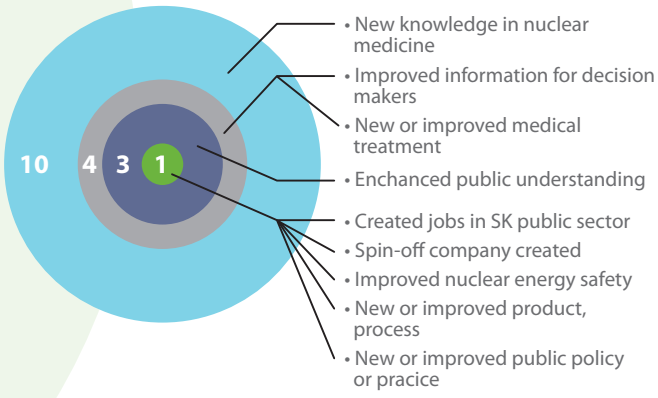
- Knowledge generated from funded projects has been included in 79 theses, publications, presentations and news stories to date.
- The Fedoruk Centre's second annual *nuclear*FACTS public event hosted over 110 participants.
- Saskatchewan's legacy and potential in nuclear research showcased at the 19th Pacific Basin Nuclear Conference in Vancouver in August 2014, attended by over 500 delegates from 21 countries.

- The Fedoruk Centre organized five research roundtables between nuclear technology companies and Saskatchewan researchers.
- Two invention disclosures and one patent were filed in 2014
- Two patents in nuclear medicine awarded in 2014

Publications, Fiscal Year 2014-2015



Social and economic impacts reported by researchers, Fiscal Year 2014-2015



Engaging communities and increasing understanding

- **110** people participated in the Fedoruk Centre's second Forum for Accountability and Communities Talking *nuclear* Science (*nuclear*FACTS) in November, 2015.

- The Fedoruk Centre is working to build dialogue with Saskatchewan people on issues related to nuclear development and sustainable energy through public events, media stories and social media.

- **5** project leaders reported that the funding they received from the Fedoruk Centre was subsequently leveraged into grants totalling **$2.6 million** from other funding agencies.

- **79** theses, publications, presentations and news stories included knowledge generated from the projects to date

- **15** projects reported social and economic benefits

- Projects reported knowledge dissemination to decision makers in the public sector, industry and the non-profit sector, both inside and outside of Saskatchewan.

- The release of the Saskatchewan Nuclear Attitudes Study by the University of Saskatchewan's Nuclear Policy Research Initiative and funded by the Fedoruk Centre was reported in newspapers and websites throughout North America.

TARGETING BREAST CANCER

University of Saskatchewan medical researchers Humphrey Fonge and Ron Geyer are using radioisotopes to develop imaging agents to identify aggressive forms of breast cancer that are resistant to chemotherapy. Results of the work can be used to tailor current treatments and develop new ways to fight the disease. The Saskatchewan Centre for Cyclotron Sciences will be a cornerstone for the researchers' efforts to develop and commercialize new radiopharmaceuticals which netted a $2.3 million grant from Western Economic Diversification Canada.

"This project has led to a successful $2.3 million Western Economic Diversification Grant …This provides us with an incredible opportunity to advance nuclear medicine research in the province. It could have a huge impact on patient care."

– Humphrey Fonge

IMPROVING ALLOYS FOR NUCLEAR REACTORS

Jerzy Szpunar, Canada Research Chair in Advanced Materials for Clean Energy at the University of Saskatchewan is leading research into developing new alloys for current and future nuclear reactors. The research, which is also being supported by the CANDU Owners Group, contributes to both nuclear safety and efficiency.

"Fedoruk Centre support allowed us to focus on the very important problem of developing materials for service in the extreme environment of nuclear reactors."

– Jerzy Szpunar

MEASURING GREENHOUSE GASES FROM URANIUM MINING

Electricity generated from nuclear power emits Greenhouse Gases (GHG) throughout the uranium fuel's life cycle. The amount of GHG produced during the mining and milling of uranium are uncertain due to a lack relevant data. David Parker, a M.Sc. student supervised by University of Saskatchewan professor emeritus Gordon Sparks and Cameron McNaughton with Golder Associates, worked to quantify GHG emissions from uranium mining and milling in Saskatchewan. Their results show uranium mining and milling are a small fraction (approximately 10%) of nuclear power's total GHG emissions over its life cycle, which are in turn 40 to 100 times lower than total life cycle emissions for electricity produced using natural gas or coal.

"There is little to no independent peer-reviewed data on greenhouse gas emissions from the mining and milling of uranium. This project provides new, state-of-the-art data on these emissions..."

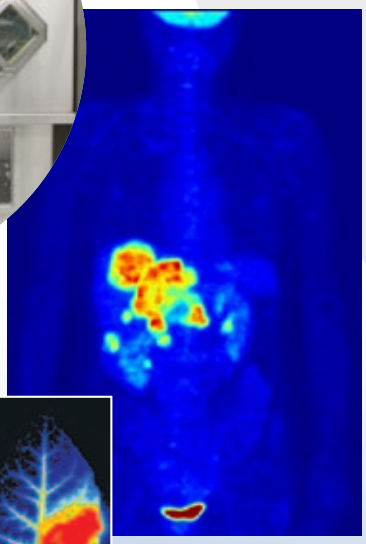
–Gordon Sparks

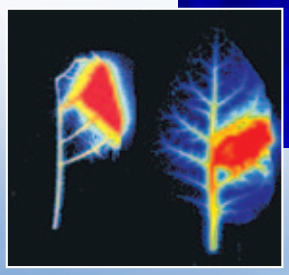
SASKATCHEWAN CENTRE FOR CYCLOTRON SCIENCES

The Saskatchewan Centre for Cyclotron Sciences is taking shape as the focal point of a new research community that will make use of the radioisotopes produced by the cyclotron to manufacture radiopharmaceuticals and imaging agents to diagnose disease, conduct ground breaking research into the biology of humans, animals and plants, and develop new medical imaging technologies.

The end of construction of the facility was marked on December 5, 2014. The $25 million project, which began in the summer of 2013, included the purchase of a cyclotron and related equipment, construction of new laboratories and refurbishment of an existing building on the University of Saskatchewan campus.

The Canadian-built cyclotron at the heart of the facility produces radioisotopes by bombarding target materials with a beam of subatomic particles.





When injected in a patient, plant or animal model, the radioistope produced by the cyclotron is taken up by cells. As it decays it releases energy that can be detected and used to build images, revealing biological processes as they happen.

HOW IT WORKS

1 A stream of negatively-charged hydrogen ions (atoms with one proton and two electrons) are injected into a vacuum chamber between two D-shaped plates – called 'dees' – enclosed between the poles of an electromagnet.

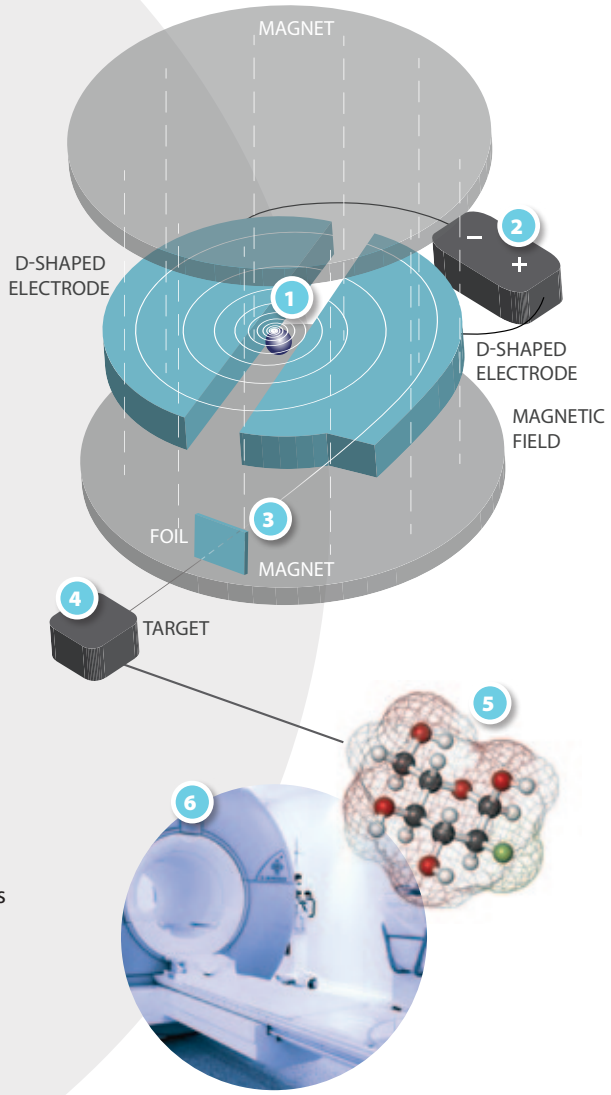
2 An alternating positive and negative charge between the dees moves the ion back and forth from one dee to the other. The ion accelerates every time it crosses the gap between the dees, gaining energy. The magnetic field holds the ion within the horizontal plane, resulting in the accelerating ions moving in a spiral path out towards the edge of the dees.

3 At the edge of the dee, the ions pass through a graphite foil that strips away the electrons, leaving a beam of high energy protons that are steered down a beamline to a target. Target materials can be liquids, solids or gases, depending on the radioisotope being made.

4 When a high energy proton from the cyclotron collides with an atom in the target, other sub-atomic particles are knocked out of the target atom's nucleus converting the atom into a radioisotope.

5 The radioisotope is separated from the target material in the facility's production laboratory. The radioisotope is tagged on to a molecule such as a sugar, creating a radiopharmaceutical. The completed drug is then shipped to a hospital or used in research.

6 In the hospital nuclear medicine department, the radiopharmaceutical is injected into a patient who is then placed in a PET-CT scanner. As the radioisotope in the radiopharmaceutical decays, it releases energy that is detected by the scanner which generates an image that is used by doctors to diagnose diseases such as cancer.



Research Grants, Funded Projects 2014-2015

The Fedoruk Centre awarded close to **$400,000** to three research projects. Led by Saskatchewan researchers, these projects will shed new light on how breast cancer develops, discover ways to use nuclear imaging to monitor the effectiveness of new treatments for Parkinson's Disease, and better understand how women participate in conversations about nuclear issues.

RESEARCH LEADER	INSTITUTION	PARTNERS	TITLE	FEDORUK CENTRE FUNDING ($)	TOTAL ($)
Ron Geyer	College of Medicine, U of S	Advanced Cyclotron Systems Inc., Washington University, University of Manitoba	Development of Molecular Imaging Agents to Measure HER3 Expression and Activation in Breast Cancer	211,715	512,715
Rajan Rakheja	College of Medicine, U of S	RUH Foundation, Saskatoon Health Region	[^{18}F]FDOPA PET/CT to Monitor the Effectiveness of Fetal Dopaminergic Grafts in Parkinson Patients	29,900	89,900
Kalowatie Deonandan	Department of Political Studies, U of S	Women in Mining/ Women in Nuclear SK	Establishing Social License: Women, Respect and Stakeholder Engagement in the Nuclear Sector	151,780	181,780

June 1, 2015

Independent Auditor's Report

To the Member of
Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc.

We have audited the accompanying financial statements of Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc., which comprise the statement of financial position as at March 31, 2015 and the statements of operations and unrestricted net assets and cash flows and schedule of expenditures for the year then ended, and the related notes which comprise a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements present fairly, in all material respects, the financial position of Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc. as at March 31, 2015 and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

PricewaterhouseCoopers LLP

Chartered Accountants

PricewaterhouseCoopers LLP
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T: +1 306 668 5900, F: +1 306 652 1315

Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc.

Statement of Financial Position

As at March 31, 2015

	2015 $	2014 $
Assets		
Current assets		
Cash held by University of Saskatchewan (note 6)	14,190,568	13,097,801
Accounts receivable (note 6)	2,831	15,316
Prepaid expenses	-	738
	14,193,399	13,113,855
Tangible capital assets (note 3)	46,257	59,209
	14,239,656	13,173,064
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities (note 6)	23,824	229,667
Deferred contributions (note 4)	14,215,832	12,943,397
Unrestricted net assets	-	-
	14,239,656	13,173,064

Economic dependence (note 1)
Operating lease (note 5)
Commitments (note 8)
Subsequent events (note 9)

Approved by the Board of Directors

John Root _____ Director Greg Fowler _____ Director

The accompanying notes are an integral part of these financial statements.

Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc.

Statement of Operations and Unrestricted Net Assets

For the year ended March 31, 2015

	2015 $	2014 $
Revenue		
Innovation Saskatchewan grant – restricted (note 7)	2,727,565	2,130,995
Interest income (note 6)	114,608	81,961
Consulting fees	-	11,412
Contributions in-kind (note 6)	2,000	2,000
	2,844,173	2,226,368
Expenditures (Schedule)		
Grants (note 6)	1,795,218	1,431,536
Operations (note 6)	840,079	794,832
Cyclotron (note 6)	208,876	-
	2,844,173	2,226,368
Excess of revenue over expenditures	-	-
Unrestricted net assets – Beginning of year	-	-
Unrestricted net assets – End of year	-	-

The accompanying notes are an integral part of these financial statements.

Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc.

Schedule of Expenditures

For the year ended March 31, 2015

	2015 $	2014 $
Expenditures		
Grants (note 6)		
Project grants	970,218	1,431,536
Cyclotron capital grants	825,000	-
	1,795,218	1,431,536
Operations (note 6)		
Salaries and benefits	545,758	516,373
Supplies and services	185,804	172,377
Travel	52,057	47,286
Rent and occupancy	38,899	38,805
Amortization	17,561	19,991
	840,079	794,832
Cyclotron (note 6)		
Salaries and benefits	170,599	-
Supplies and services	30,690	-
Travel	7,587	-
	208,876	-
	2,844,173	2,226,368

The accompanying notes are an integral part of these financial statements.

Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc.

Statement of Cash Flows

For the year ended March 31, 2015

	2015 $	2014 $
Cash provided by (used in)		
Operating activities		
Excess of revenue over expenditures for the year	-	-
Item not affecting cash		
Amortization	17,561	19,991
	17,561	19,991
Changes in non-cash working capital items		
Cash held by University of Saskatchewan	(1,092,767)	(9,341,297)
Accounts receivable	12,485	(5,636)
Prepaid expenses	738	336
Accounts payable and accrued liabilities	(205,843)	157,096
Deferred contributions	1,272,435	9,169,005
	(12,952)	(20,496)
	4,609	(505)
Investing activities		
Proceeds from (purchase of) tangible capital assets	(4,609)	505
Net change in cash	-	-
Cash – Beginning of year	-	-
Cash – End of year	-	-

The accompanying notes are an integral part of these financial statements.

Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc.

Notes to Financial Statements

March 31, 2015

1 Nature of business

The Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc. (the "corporation" or "Fedoruk Centre") was originally incorporated as a non-profit organization under the Canadian Not-for-Profit Corporations Act on December 20, 2011 as the Canadian Centre for Nuclear Innovation Inc., with its parent company and sole member being the University of Saskatchewan ("U of S"). On October 5, 2012 the corporation was registered with Corporations Canada as the Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc. The corporation qualifies as a tax exempt organization under the Income Tax Act.

The mandate of the Fedoruk Centre is to place Saskatchewan among global leaders in nuclear research, development and training through investments in partnerships with academia and industry, for maximum societal and economic benefit. This purpose is accomplished through investment in projects and programs of Saskatchewan-based, publicly-funded institutions and their partners and through stewardship of selected nuclear research facilities. The first such facility will be the research cyclotron facility. The Fedoruk Centre began regulatory commissioning in November 2014 and will assume responsibility for operating the facility in 2015.

The operation of the corporation is economically dependent on the funding from Innovation Saskatchewan (note 7).

2 Summary of significant accounting policies

a) Basis of presentation

These financial statements include the accounts of the corporation and are presented in accordance withCanadian accounting standards for not-for-profit organizations ("ASNPO").

b) Use of estimates

The preparation of financial statements in conformity with ASNPO requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenue and expenditures during the reporting period. Actual results could differ from these estimates.

c) Tangible capital assets

Tangible capital assets are recorded at cost and amortized over their expected useful lives. Computer equipment and software is amortized using the declining balance method at a rate of 30%. Furnishings and equipment are amortized using the straight-line method at a rate of 20%. Leasehold improvements are amortized using the straight-line method over the term of the lease.

d) Revenue recognition and project grant expenditures

The corporation follows the deferral method of accounting for contributions which includes funding from Innovation Saskatchewan and other funding sources. Deferred contributions related to expenses of future periods represent unspent externally restricted funding and any related investment income, which are for the purposes of providing funding to eligible recipients and the payment of operating and capital expenditures in future periods. Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Investment income earned on the cash held by University of Saskatchewan is recognized as revenue when the U of S can measure and transfer the income to the corporation.

Contributions of materials and services are recognized only when a fair value can be reasonably estimated and when the materials and services are used in the normal course of the corporation's operations and would otherwise have been purchased.

Project grants are recognized as expenditures when the current year project grant commitment to the recipient is due under the terms of the grant agreement.

e) Financial instruments

Financial assets and financial liabilities consisting of cash held by University of Saskatchewan, accounts receivable, and accounts payable and accrued liabilities are initially recognized at fair value and subsequent measurement is at amortized cost. The corporation does not consider itself to have significant exposure to credit risk, currency risk, interest rate risk, liquidity risk, market risk or other price risk. Financial assets are tested for impairment at the end of each reporting period when there are indications that an asset may be impaired.

3 Tangible capital assets

Tangible capital assets consist of:

			2015	2014
	Cost $	Accumulated amortization $	Net book value $	Net book value $
Leasehold improvements	36,671	18,400	18,271	25,580
Furnishings	36,193	18,097	18,096	25,335
Equipment	10,267	5,133	5,134	7,187
Computer equipment and software	8,915	4,159	4,756	1,107
	92,046	45,789	46,257	59,209

4 Deferred contributions

The corporation receives funding from Innovation Saskatchewan to be held, administered and distributed in accordance with the funding agreement. Deferred contributions related to expenses of future periods represent the unspent externally restricted funding, which is for the purpose of providing funding to eligible recipients and the payment of operating and capital expenditures in future periods. The changes in the deferred contributions balance are as follows:

	Operations $	Cyclotron $	2015 $
Opening deferred contributions	6,643,397	6,300,000	12,943,397
Contributions during the year: Innovation Saskatchewan (note 7)	4,000,000	-	4,000,000
Total contributions available	10,643,397	6,300,000	16,943,397
Less: Amount recognized as revenue in current year	1,902,565	825,000	2,727,565
Closing deferred contributions	8,740,832	5,475,000	14,215,832

	Operations $	Cyclotron $	2014 $
Opening deferred contributions	3,774,392	-	3,774,392
Contributions during the year: Innovation Saskatchewan (note 7)	5,000,000	6,300,000	11,300,000
Total contributions available	8,774,392	6,300,000	15,074,392
Less: Amount recognized as revenue in current year	2,130,995	-	2,130,995
Closing deferred contributions	6,643,397	6,300,000	12,943,397

5 Operating lease

On September 1, 2012 the corporation entered into a lease agreement with Saskatchewan Opportunities Corporation, otherwise known as Innovation Place, for office space. The term of the lease agreement is five years and the future minimum annual lease payments are $37,180 per year until the expiry of the lease agreement on August 31, 2017.

6 Related party transactions

During the year, the corporation entered into transactions with its parent company and sole member, the U of S. The corporation purchased goods and services from the U of S in the amount of $30,163 (2014 – $60,947), which are included in expenditures. In addition, cyclotron capital costs of $305,357 (2014-nil) incurred by the corporation were reimbursed by the U of S, with no net amount remaining in expenditures.

Interest income of $114,608 (2014 – $81,961) was received from the U of S based on the corporation's funds held in bank accounts administered by the U of S. Of the grants made during the year by the corporation, $1,795,218 (2014 – $1,385,199) were made to the U of S, including individuals or entities related to or employed by the U of S. Insurance in-kind with a fair value, at the date of contribution, of $2,000 (2014 – $2,000) has been recognized as a contribution and expenditure in the statement of operations and unrestricted net assets.

The related party transactions described above are measured at carrying amounts. All funds received by the corporation are held in, and payments to vendors of the corporation are made from, bank accounts administered by the U of S, which are included on the statement of financial position as "cash held by University of Saskatchewan".

7 Innovation Saskatchewan grant

The Fedoruk Centre signed a funding agreement with Innovation Saskatchewan on March 2, 2012 for a total of $30 million to be disbursed over 7 years, from January 2, 2012 to March 31, 2019. Funds are to be used solely for the purposes of the project as defined in the agreement. The agreement defines that all funds must be returned to the funder if there is non-compliance or the agreement is terminated by the funder, and at the application of the Fedoruk Centre the funder may elect to limit repayment to an amount not exceeding actual and reasonable project expenses paid by the Fedoruk Centre.

The funding agreement with Innovation Saskatchewan was amended on June 4, 2014. The amendment allows the Fedoruk Centre to redirect up to $6.3 million of the original $30 million to assist the U of S with cash flow for the cyclotron capital project. The amount redirected for the cyclotron capital project, which was paid to the corporation during the year ended March 31, 2015, will be reduced accordingly if capital costs for the cyclotron are less than $6.3 million. The amendment also provides for $1 million per year for three years, in addition to the original $30 million, for cyclotron facility operating costs. A payment of $1 million will be advanced to the Fedoruk Centre when the conventional infrastructure has been commissioned and the facility is ready for commissioning of nuclear and pharmaceutical production in compliance with regulatory authorities. Two payments of $1 million each will be advanced to the Fedoruk Centre on the second and third anniversaries of the first payment.

8 Commitments

The primary activity of the Fedoruk Centre is to provide grants to eligible individuals and their institutions for the purpose of nuclear research, development and training. Project grant awards are funded over multiple years. The total maximum commitment made during the year ended March 31, 2015 was approximately $1,228,000 (2014 – $2,017,000). Project grants disbursed during the year ended March 31, 2015 were $970,218 (2014 – $1,431,536). The remaining maximum commitment on all projects is approximately $1,024,000.

During the year ended March 31, 2014, the Fedoruk Centre signed an operating license agreement with the U of S, which will become effective upon substantial completion of construction of the cyclotron facility. The agreement calls for the Fedoruk Centre to be responsible for the operation, maintenance and eventual decommissioning of the cyclotron facility. During the term of the license agreement, an annual license fee of $520,000 will be paid to the U of S by the Fedoruk Centre, in twelve equal monthly instalments. The U of S will provide the Fedoruk Centre with an annual operating grant of $25,000.

The operating license agreement includes a requirement for a separate funding agreement to provide the U of S with funding in the form of grant contributions of up to $6.3 million for the construction of the cyclotronfacility. Funds from other sources are to be fully exhausted prior to any funds from the Fedoruk Centre beingutilized. Each instalment, a maximum of $2.1 million, will be adjusted according to need. The balance of the $6.3 million not required for the capital project will be returned to the Fedoruk Centre's operating account. During the year ended March 31, 2015 grants of $825,000 (2014 – nil) were made.

9 Subsequent events

Subsequent to year-end, as a component of its Class II Nuclear Facilities and Prescribed Equipment License from the Canadian Nuclear Safety Commission (CNSC), the corporation completed its acknowledgement of liability with respect to the expected future liability associated with the disposal of currently licensed prescribed equipment and nuclear substances. The corporation is not required to set aside any specific funds, or pay any annual financial contributions to the CNSC, with respect to this obligation. There is no decommissioning liability recognized on the statement of financial position at March 31, 2015 as the cyclotron facility is not yet operational and the decommissioning plan is currently under development.

Subsequent to year end, an agreement was signed between the Fedoruk Centre, the University of Regina and the University of Saskatchewan under which the Fedoruk Centre will fund three research chairs for five years, beginning in 2015 and ending June 30, 2020, and will fund ancillary support to accelerate innovation in nuclear imaging tools and techniques and to advance research, development and training in nuclear medicine.

The Fedoruk Centre's total maximum commitment is $5,166,444 over the term of the agreement, with a maximum of $2,948,444 relating to the fiscal year ended March 31, 2016.

Fedoruk Centre
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