

CRSNG Investir dans les	s gens, la découverte et l'innovatior	1			
	FORI Application PAI		t.	Date	
Family name of applicant	Given name	Initial(s)	of all given names	Personal identi	ification no. (PIN)
Language of application English French		Time (in activity	n hours per month) to be	e devoted to the p	proposed research /
Type of grant applied for			ategic Projects, indicate applicable.	the Target Area	and Sub-Target
Title of proposal					
Write a maximum of ten (10) key words that d	escribe this proposal. Use comn	nas to separate	them.		
Research subject code(s)		Area of applica	ation code(s)		
Primary Secon	dary	Primary		Secondary	
CERTIFICATION REQUIREMENTS					
f this proposal involves any of the following, cl	neck the box(es) and submit the	protocol to the	university certification co	ommittee.	
Research involving : Humans	Human pluripotent stem cells		Animals	Biohazar	
Does any phase of the research described in t n Part 1 of Appendix B?	his proposal a) take place outsic	le an office or la	boratory, or b) involve a	n undertaking as	described
NO		either question a) or b) – Appendices A	and B must be c	ompleted
TOTAL AMOUNT REQUESTED FROM Year 1 Year 2	NSERC Year 3		Year 4	Year 5	
Teal I	Teal 3		Teal 4	Teal 3	
SIGNATURES (Refer to instructions '	 "What do signatures mea	n?")			
t is agreed that the general conditions governi to this application and are hereby accepted by	ng grants as outlined in the NSE	ERC Program G		ply to any grant n	nade pursuant
Applicant Applicant's department, university, tel. ar	nd fax nos., and e-mail		Head of	department	
	'		Dean	of faculty	
	1			t of university esentative)	

Form 101 (2003)

	Personal identification no. (PIN)			Family name of applicant		
CO-APPLICANTS						
I have read the statement "What do s	signatures on the	e application mean?" in the accor	mpanying in	structions and agree to it		
PIN, family name and initial(s)	Research/ activity time	Organization	iipariyirig ii	Signature		
int, raining name and middi(s)	(hours/month)	Organization		oignature		
CO-APPLICANTS' ORGANIZATIONS	S AND/OD SHE	PROPERING ORGANIZATIONS (S	organizati	on different from page 1)		
It is agreed that the general conditions gove						
do signatures on the application mean?" and	d "Summary of pro	posal for public release" in the accompa				
pursuant to this application and are hereby a						
Family name and title of position	d given name of s on, and name of c	signing officer, organization		Signature		



	reisonal identification no. (Filv)	гапшу паше от аррисати
SUMMARY OF PROPOSAL FOR PUB		
This plain language summary will be availa include your business telephone number a	ble to the public if your proposal is funded. Althou nd/or your e-mail address to facilitate contact with	gh it is not mandatory, you may choose to the public and the media about your research.
Business telephone no. (optional):		
E-mail address (optional):		
Second Language Version of Summa	ary (optional).	

Personal identification no. (PIN)	Family name of applicant

(Refer to instructions to see if this section applies to your application. Use additional page(s) if necessary.)								
Milestone	Description of activities	Anticipated starting date	Anticipated completion date					

RESEARCH ACTIVITY SCHEDULE

Personal identification no. ((PIN
-------------------------------	------

Family name of applicant

Before completing this section, **read the instructions** and consult the *Financial Administration* section in the NSERC *Program Guide for Professors* concerning the eligibility of expenditures for the direct costs of research and the regulations governing the use of grant funds.

PROPOSED EXPENDITURES FOR DIRECT COSTS OF RESEARCH (Include cash expenditures only)						
		Year 1	Year 2	Year 3	Year 4	Year 5
1) Salar	ies and benefits					
a)	Students					
b)	Postdoctoral fellows					
c)	Technical/professional assistants					
d)						
2) Equip	oment or facility					
a)	Purchase or rental					
b)	Operation and maintenance costs					
c)	User fees					
3) Mate	erials and supplies					
4) Trave	el					
a)	Conferences					
b)	Field work					
c)	Collaboration/consultation					
5) Disse	emination costs					
a)	Publication costs					
b)						
6) Othe	r (specify)					
a)						
b)						
	PROPOSED EXPENDITURES IRECT COSTS OF RESEARCH					
	cash contribution from ry (if applicable)					
	eash contribution from sity (if applicable)					
	eash contribution from sources (if applicable)					
	- AMOUNT REQUESTED NSERC (transfer to page 1)					

		PP except RNG ar				
	Personal identificat	ion no. (PIN)		Family name of app	olicant	
See instructions for further details.						
PROPOSED PROJECT COSTS						
KOI OOLD I KOOLO I COOTO	Ye	ear 1	Y	ear 2	Yea	ar 3
	Cash	In-kind	Cash	In-kind	Cash	In-kind
) Salaries and benefits						
a) Students						
b) Postdoctoral fellows						
c) Technical/professional assistan	ts					
d)						
2) Equipment or facility						
a) Purchase or rental						
b) Operation and maintenance cos	ets					
c) User fees						
d)						
Materials and supplies						
a)						
b)						
c)						

Travel a) Conferences b) Field work c) Project-related travel 5) Dissemination costs a) Publication costs b) Other activities Technology transfer activities a) Field trials b) Prototypes **TOTAL PROJECT COSTS Total support from industry** Total support from university Total support from other sources AMOUNT REQUESTED FROM NSERC Form 101 (2003), page 5-RPP of 9

Canada PROTECTED WHEN COMPLETED Version française disponible 5 (RPP except RNG and SPG)

Family name of applicant

Personal identification no. (PIN)

See in	structions for further details.			-			
PROF	POSED PROJECT COSTS						
		Yea	ar 4	Ye	Year 5		
		Cash	In-kind	Cash	In-kind		
1) S	Salaries and benefits						
а	a) Students						
b	o) Postdoctoral fellows						
C	e) Technical/professional assistants						
d	d)						
2) E	Equipment or facility						
а	a) Purchase or rental						
b	o) Operation and maintenance costs						
c	e) User fees						
C							
3) N	Materials and supplies						
а)						
b)						
C	;)						
4) T	ravel						
а	a) Conferences						
b	o) Field work						
C	e) Project-related travel						
d	d)						
5) [Dissemination costs						
а	a) Publication costs						
b	o) Other activities						
6) T	echnology transfer activities						
а	a) Field trials						
b	o) Prototypes						
C)						
TOTA	AL PROJECT COSTS						
Γotal	support from industry						
Γotal	support from university						
Γotal	support from other sources						
AMC	OUNT REQUESTED FROM NSERC						

Personal identification no. (PIN)	Family name of applicant

Before completing this section, read the instructions and consult the Financial Administration section in the NSERC Program Guide for Professors concerning the eligibility of expenditures for the direct costs of research and the regulations governing the use of grant funds.

		Previous Year	Current Year	Year 1	Year 2	Year 3
Salaries						
a) Technical/professional	Total					
	NSERC					
b)	Total					
	NSERC					
Facility						
a) Maintenance	Total					
a) Walliterlance	NSERC					
h) Operating costs	Total					
b) Operating costs	NSERC					
	Total					
c) Minor equipment/upgrades	NSERC					
d)	Total					
- ,	NSERC					
Travel						
a) Conferences	Total					
	NSERC					
D. Eddard	Total					
b) Field work	NSERC					
	Total					
c)	NSERC					
Other proposed expenditures						
a)	Total					
,	NSERC					
otal cost of running facility	,					
otal revenues (from page 7	r)					
urrent and requested NSEI FA grants (transfer to pag	RC e 1)					

5 (SHIP TIME)

Personal identification no. (PIN)	Family name of applicant

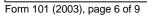
SHIF	P TIME REQUIREMENTS		
	PLATFORM 1	YEAR 1	YEAR 2
1	a) Number of ship days requested		
	b) Daily rate		
	c) Total cost		
2	Mission type		
3	Geographical location of operation:		
	a) Name of location		
	b) Latitude and longitude		
	c) Estimated distance from port to work site		
	d) Estimate of total distance steamed		
4	Platform requested, including two alternate platforms		
	(by order of preference):		
	b)		
	с)		
5	Preferred dates (by order of preference):		
	a)		
	b)		
	c)		
6	Number of personnel:		
	a) Male		
	b) Female		
	c) Total		

Personal identification no. (PIN)	Family name of applicant

Before completing this section, read the instructions for contributions from supporting organizations and consult the Financial Administration section in the NSERC Program Guide for Professors concerning the eligibility of expenditures for the direct costs of research and the regulations governing the use of grant funds, and the Guidelines for Supporting Organizations concerning the eligibility of in-kind contributions. Complete the section if you are reporting in-kind contributions or cash contributions for direct and/or indirect costs of research. Submit a separate copy for each supporting organization.

Name of supporting organization

	Year 1	Year 2	Year 3	Year 4	Year 5
eash contributions to direct costs of esearch (Transfer amounts to page 5)					
n-kind contributions to direct costs of research					
Salaries for scientific and technical staff					
2) Donation of equipment, software					
3) Donation of material					
4) Field work logistics					
5) Provision of services					
6)					
n-kind contributions to indirect costs of research					
1) Use of organization's facilities					
2) Salaries of managerial and administrative staff					
3)					
Total of all in-kind contributions					
Contribution to university overhead (optional)					





Complete this section if you are applying to	Personal identifica						
Complete this section if you are applying to	1 Oroonai laonanoe	Personal identification no. (PIN)		ne of applicant			
Complete this section if you are applying to							
Complete this section if you are applying to							
otal revenues in the appropriate section on	s the purchase of an e	nd Instruments (Categories quipment item or the installa	2 and 3) Program, or ation of a facility costil	a Major Facilities Acce ng \$150,000 or more. F	ess grant, Report		
EXPECTED REVENUES FROM EQ	UIPMENT OR INS	TALLATION					
	Previous y	ear Current year	Year 1	Year 2	Year 3		
1) User fees (internal source)							
2) User fees (external source)							
3) Cash contributions from university							
Other contributions to direct costs (specify). Do not include NSERC supp	port.						
FOTAL REVENUES (transfer this amount to the "Total revenues" on page 5 for MFA only)							
n-kind contributions (specify)							



8 (UFA)

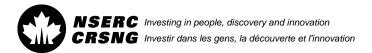
	Personal identification no. (PIN)	Family name of applicant						
University Faculty Awards								
Complete this section if you are a new	nominee for the UFA Program.							
1) Personal eligibility								
Are you a woman? Are you a Canadian citizen?	an Aboriginal person? Permanent resident?							
_								
Do you currently hold a doct	oral degree? Yes No							
If no, give the date you expect	to obtain your degree							
2) Nominating university								
University Name								
Department								
		_						
3) University position								
Title of position offered								
Is this position Tenured?	Tenure-track? Non ter	nure-track?						
Is this positionFull time?	Permanent resident?							
Proposed start date of awar	d							

9 (SRO, CHRP, SPG, RNG, CRD, PPP, IRC, CMTC)

Family name of applicant

Personal identification no. (PIN)

INTELLECTUAL PROPERTY						
Complete this section if you need to discuss the plans for protecting and disposing of intellectual property arising from the grant. Do not exceed one page.						





APPENDIX A (Form 101) Environmental Impact

Page 1 of 3

(Total Appendix A only)

Complete this Appendix if you have checked the "YES" box under Certification/Requirements on page 1, Form 101. Include activities that will take place in Canada **and/or abroad.** This information will assist NSERC in determining whether a screening is required under the *Canadian Environmental Assessment Act.* (See the "Requirements for Certain Types of Research" in the NSERC *Program Guide for Professors*.)

Family name of applicant	Given name	Initial(s) of all given names	Personal identification no. (PIN)
Name of applicant's organization			
Title of proposal			
This of proposal			
Name of other participating organizations (if applicate	olo)		
Name of other participating organizations (if applicat	ole)		
Name of Location (2)			
Name of Location (Please complete an add	litional copy of Appendix A for EA	ACH location at which resea	rch will be undertaken.)
Main characteristics of the location (i.e., physic	cal description & coordinates)		
	,		
		Continue o	n page 3 of this Form (if necessary).

Form 101, Appendix A (2003)

NOTE: There is a potential to generate several Appendices A.

(613) 995-8079, OR BY E-MAIL AT enviro.assess@nserc.ca.

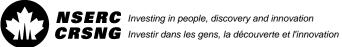
The information contained in this form will be used by NSERC to determine any potential environmental effects.

in the space provided in the upper right corner of the form. IF YOU FORESEE THE NEED FOR MORE THAN 3 (THREE) APPENDICES A, PLEASE CONTACT NSERC'S ENVIRONMENTAL ASSESSMENT UNIT BY TELEPHONE AT (613) 992-3612 OR

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Please ensure that all Appendix A pages are numbered consecutively



SEND ONE ORIGINAL ONLY DO NOT PHOTOCOPY

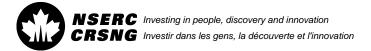
Family name of applicant Personal identification no. (PIN) Page 2 of 3 (Total Appendix A only) **APPENDIX A (Form 101) CONTINUED** 2. Principal activity(ies) and activity component(s). Continue on page 3 of this Form (if necessary). 3. For each principal activity and activity component, list the environmental elements affected and provide a description of those effects.

4. Mitigation measures.

Continue on page 3 of this Form (if necessary).

Continue on page 3 of this Form (if necessary).



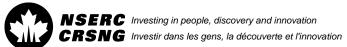




Personal identification no. (PIN) Family name of applicant Page 3 of 3 (Total Appendix A only) 404) CONTINUED ADDITIONAL INFORMATION

APPENDIX A (FORM 101) CONTINUED	ADDITIONAL INFORMATION
Use this page to enter additional text from sections 1, 2, 3, and/or 4 (if necessary).	

Form 101, Appendix A (2003)





APPENDIX B (Form 101) Canadian Environmental Assessment Act **Pre-Screening Checklist**

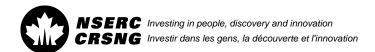
Complete this Appendix if you have checked the "YES" box under Certification/Requirements on page 1, Form 101. Include activities that will take place in Canada and/or abroad. This information will assist NSERC in determining whether a screening is required under the Canadian Environmental Assessment Act. (See the "Requirements for Certain Types of Research" in the NSERC Program Guide for Professors.)

Family name of applicant				Given name	Initial(s) of all given names	Personal identification no. (PIN)				
Nar	Name of applicant's organization									
Ann	lia	onto	are responsible for verifying whether	normite are required for any o	f the activities listed below.	Plance indicate				
			o (N) or unknown (U) by checking the a	•		riease muicate				
Υ	N	U		DESCRIPTION OF A	CTIVITY					
Part	1. ·	- De	termination of Physical Work under the	e CEAA						
			Does any phase of the proposal involve activity in relation to a built structure that			=				
Part	2. ·	- De	termination of Assessable Activities u	nder the CEAA						
			Activity takes place in a National Park or	National Nature Reserve in Cana	ada					
			Activity takes place on First Nation lands	S						
			Activity takes place in the North (Yukon,	Nunavut, or the Northwest Territ	ories)					
			Activity takes place in or within 30 metre	es of the right-of-way of a power lin	ne, a natural gas line, or a railwa	ay line				
			Activity takes place in or adjacent to a w the removal or damaging of aquatic vege	,	eration, disruption or destruction	n of fish habitat (including				
			Destruction of fish other than by fishing							
			Sampling or prospecting for ores or min-	erals						
			Disposal of a prescribed nuclear substa	nce other than in a laboratory equ	uipped for such disposal					
			Deposit of a deleterious or other substar	nce into the environment (in the ea	arth, air, or water)					
			Any kind of remediation of contaminated	I land						
	Deposit of oil, wastes or any other substances harmful to migratory birds in waters or in areas frequented by migratory birds									
			Killing or removal of migratory birds, their nests, eggs, or carcasses or other physical activities that may require a permit or other authorisation under the Migratory Birds Regulations or Migratory Bird Sanctuary Regulations							
			The removal or damaging of vegetation and/or the carrying on of agricultural activities or the disturbance or removal of soil in a wildlife area that requires a permit under section 4 of the Wildlife Area Regulations under the Canada Wildlife Act							
			Physical activities that are carried on in 0 ecodistrict, either directly or through the		hreaten the continued existence	of a biological population in an				
			Establishment or operation of a field can	np in a single location that will be	used for 200 person-days or mo	ore within a calendar year				
			Seismic surveying involving more than 5 the survey the air pressure measured at	•	<u> </u>					
Forn	orm 101, Appendix B (2003) Page 1 of 2 PROTECTED WHEN COMPLETED Version française disponible									





	Personal identification no. (PIN)	Family name of applicant
APPENDIX B (Form 101) continued		
	quired to undertake any activity for any phase of the prop	posal? If yes , list them below, along
with the name of the issuing agency(ies). If n	o, please state "None required" and submit this page wi	th the rest of your proposal.
Form 101, Appendix B (2003) Page 2 of 2	PROTECTED WHEN COMPLETED	Version française disponible



SEND ONE
ORIGINAL ONLY
DO NOT PHOTOCOPY

Date

APPENDIX C Referee Suggestions (Form 101)

Complete Appendix C for all types of grants (except Discovery Grants, Research Tools and Instruments -

Categ	ory 1 and Major Facilities Access	Grants). Read	the instructions I	pefore completin	g the appendix.			
Family name of applicant			Given name		Initial(s) of all given	ven names	Personal identific	cation no. (PIN)
Title	of proposal	ļ.					-	
Α				Area(s) of expe	ertise	1		
						PIN		Lang.
				Area(s) of expe	artico			
В				Area(s) or expe	Situac	2		
						PIN		Lang.
С				Area(s) of expe	ertise	3		1
						PIN		Lang.
				Area(s) of expe	ertise			
D				7 0 (0) 0 0 0		4		
						PIN		Lang.
E				Area(s) of expe	ertise	5		1
						PIN		Lang.
NSF	RC reviewing committee	1st committee	reviewer				Personal identific	
. 10	onoming community							
		2nd committee	e reviewer				Personal identific	cation no. (PIN)
		3rd committee	e reviewer				Personal identific	cation no. (PIN)