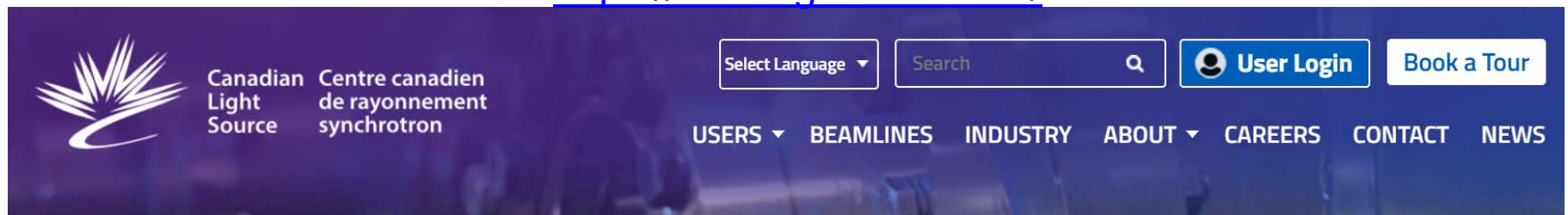


# How to write a successful proposal to the Canadian Light Source (CLS)

Chithra Karunakaran

February 1, 2021

<https://www.lightsource.ca/>



The screenshot shows the top navigation bar of the Canadian Light Source website. On the left is the logo, a stylized blue and white sunburst. To its right, the text 'Canadian Light Source' and 'Centre canadien de rayonnement synchrotron' is displayed in two columns. In the center, there is a 'Select Language' dropdown menu, a search bar with a magnifying glass icon, and a 'User Login' button with a person icon. On the right, there is a 'Book a Tour' button. Below these elements is a horizontal navigation menu with the following items: 'USERS', 'BEAMLINES', 'INDUSTRY', 'ABOUT', 'CAREERS', 'CONTACT', and 'NEWS', each with a small downward arrow indicating a dropdown menu.

# Outline

- Beamtime access mechanisms
- General user access
  - Peer review process
  - Writing successful proposals
  - Selecting beamlines
- Before and after beamtime
- Agriculture website
- Questions?
  - What other things we can do for you?

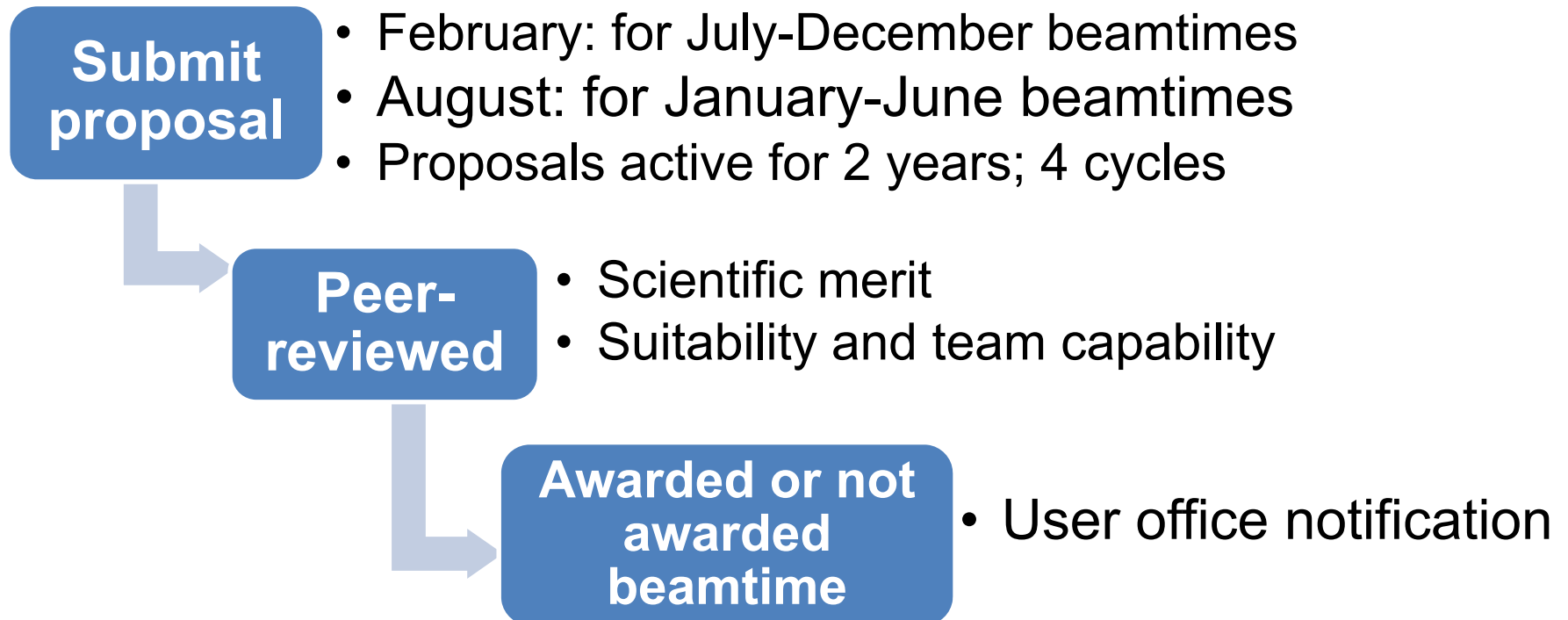


# Beamtime access mechanisms

- General user access
  - Users submit proposals that are peer-reviewed and ranked
  - \$1/1 shift (8 hours) of beamtime
- Purchased access
  - No proposal submission and no peer-review
  - For proprietary work
- Rapid access
  - Proposals submitted, internal review, for proof-of-concept works only



# General User Proposals



**Present call closes on February 24, 2021**

Call for proposals: [https://www.lightsource.ca/all\\_other\\_beamlines](https://www.lightsource.ca/all_other_beamlines)

Deadlines: [https://www.lightsource.ca/call\\_for\\_proposals](https://www.lightsource.ca/call_for_proposals)

# Other than General User Access

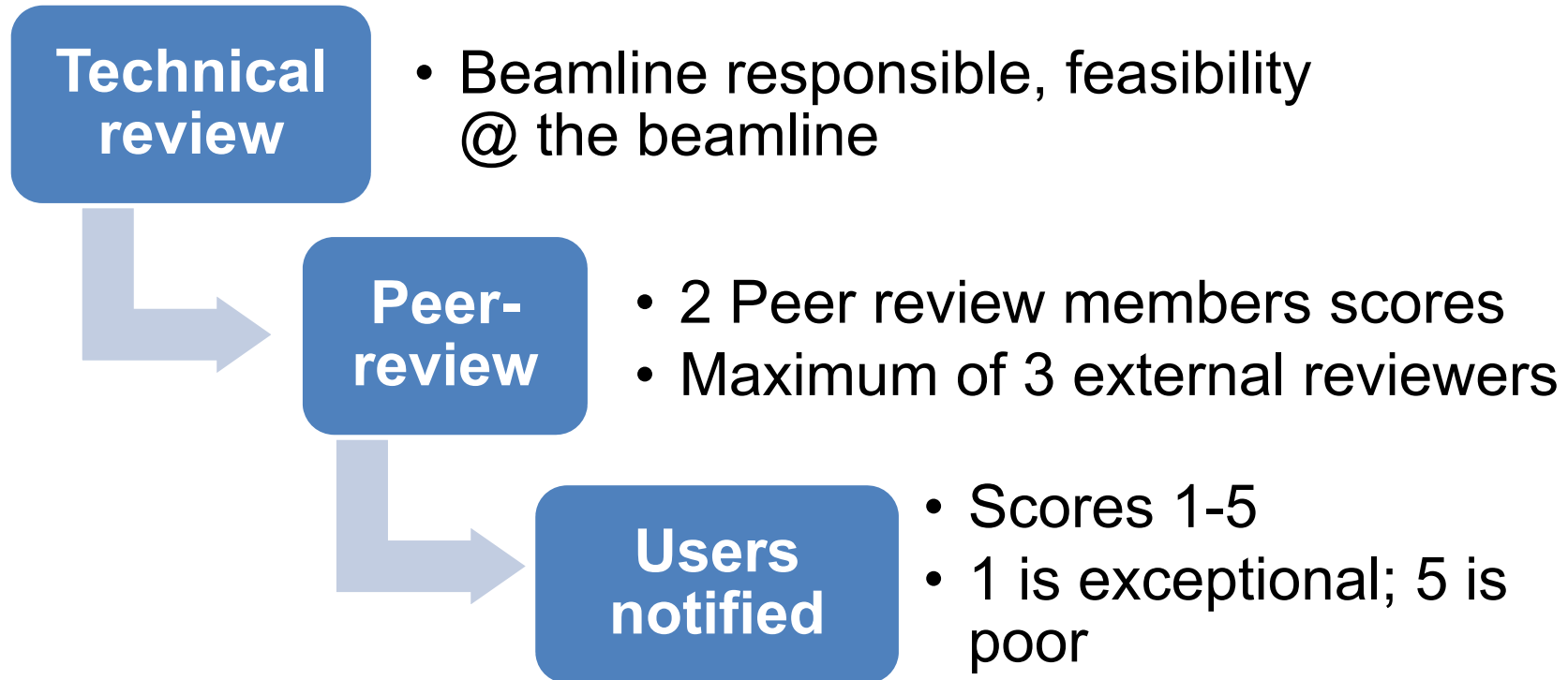
## Purchased access

- For proprietary work
- For fast access
- Industrial science group

## Rapid access

- Proof-of-concept work
- Complete a paper or thesis (only few samples)
- Internally reviewed

# Peer-review Process



# General User Proposals

## *Submit proposals*

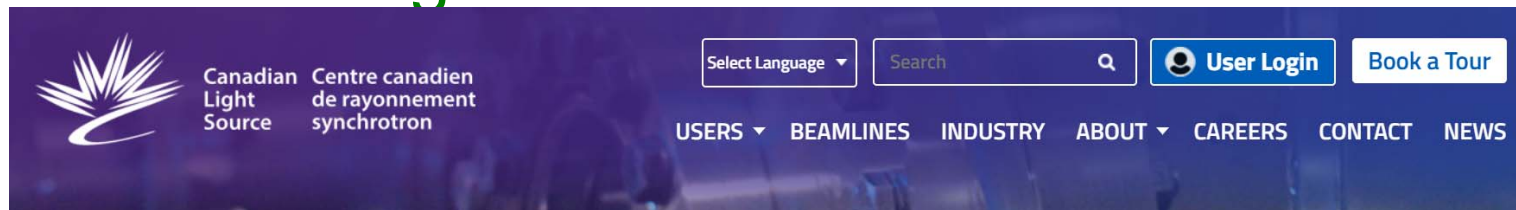
- First contact beamline responsible
- New proposal – submit a new proposal
  - Attach (max: 1 page) any relevant or preliminary results
- Existing proposal
  - Good score ( $\sim < 2.0$ ), submit beamtime request
  - Score  $> 2.0$  – clone and edit the proposal and re-submit through the peer-review process
  - Address peer-reviewers comments
  - Attach (max: 1 page) any relevant or preliminary results



# General User Proposals

## New user

- Become a CLS user
  - Create a login credential



- Contact beamline responsible
  - <https://www.lightsource.ca/beamlines.html>

Questions: email: [CLS.User-Office@lightsource.ca](mailto:CLS.User-Office@lightsource.ca); phone: 306-657-3700



# General User Proposals

## New proposal

- Start a **new proposal** or **edit a proposal**

The screenshot displays the User Services Online (USO) dashboard for Chithra Karunakaran. The interface includes a navigation sidebar on the left with options like Home, Publications, Proposals, Permits, Projects, Facilities, and Scheduling. The main content area is divided into several sections:

- My Profile:** Displays user information for Chithra Karunakaran, including her professional status, phone number (3063410400), email (chithra.karunakaran@lightsource.ca), and address (44 Innovation Blvd, Saskatoon, S7N 2V3, SASKATCHEWAN, CANADA).
- Proposals:** A highlighted section (green border) containing a yellow notification box: "The call for proposals to be scheduled during the period 2020-07-01 – 2020-12-31 is currently open with a submission deadline of 2020-02-26 at noon." Below this is a "+ Create a Proposal" button.
- Draft Proposals:** A highlighted section (blue border) showing a draft titled "test" with a description "Spectral analysis of elements in bovine hoof ti...".
- Reviews:** A section titled "Reviews Needing Attention" with a count of 0, stating "There are currently no reviews needing your attention."
- Weather:** A widget for Saskatoon, SK, showing current conditions: "RIGHT NOW – Scattered Clouds · Feels like -12°".
- Feedback:** A green banner stating "In order to improve the quality of our services the CLS welcomes feedback from its users." and a "Beam Time Pending Feedback" section with 5 items, including "MID-IR-AGILENT – 31G10427~Chebli".

# Proposals

## Proposal details

USO Edit Proposal  
Dashboard / My Proposals / 10854 - test

### Special Request Proposal for Cycle 31 (Jan-Jun 2020)

The call for proposals for Cycle 31 (Jan-Jun 2020) closed on Aug 28, 2019. Submissions for General User Access will be considered for discretionary time only, until the next call for proposals.

**If you wish a proposal to be considered for General User Access, please contact the User's Office for support on CLS.User-Office@lightsource.ca**

Call Open: Aug 2019 - 01 Nov 2019  
Schedule Period: 01 Jan 2020 - 01 Jun 2020

Any substantial amendment to a proposal should be discussed with a beamline responsible no later than one month before scheduled beamtime.

Description Research Team Beamlines Materials

Tips and instructions on the side

- Same proposal, can select multiple beamlines
- Save the draft proposal often



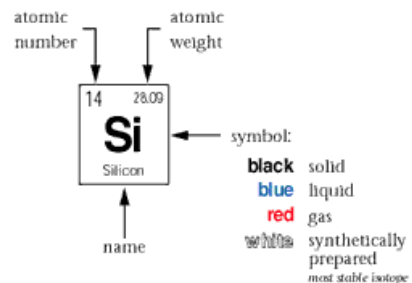
# Selecting Beamlines

## X-ray Properties of the Elements

Click on an element to see its properties



1 1.01 <b>H</b> Hydrogen																	2 4.003 <b>He</b> Helium	
3 6.94 <b>Li</b> Lithium	4 9.01 <b>Be</b> Beryllium																	10 20.18 <b>Ne</b> Neon
11 22.99 <b>Na</b> Sodium	12 24.31 <b>Mg</b> Magnesium																	18 39.95 <b>Ar</b> Argon
19 39.10 <b>K</b> Potassium	20 40.08 <b>Ca</b> Calcium	21 44.96 <b>Sc</b> Scandium	22 47.90 <b>Ti</b> Titanium	23 50.94 <b>V</b> Vanadium	24 51.996 <b>Cr</b> Chromium	25 54.94 <b>Mn</b> Manganese	26 55.85 <b>Fe</b> Iron	27 58.93 <b>Co</b> Cobalt	28 58.70 <b>Ni</b> Nickel	29 63.55 <b>Cu</b> Copper	30 65.37 <b>Zn</b> Zinc	31 69.72 <b>Ga</b> Gallium	32 72.59 <b>Ge</b> Germanium	33 74.92 <b>As</b> Arsenic	34 78.96 <b>Se</b> Selenium	35 79.90 <b>Br</b> Bromine	36 83.80 <b>Kr</b> Krypton	
37 85.47 <b>Rb</b> Rubidium	38 87.62 <b>Sr</b> Strontium	39 88.91 <b>Y</b> Yttrium	40 91.22 <b>Zr</b> Zirconium	41 92.91 <b>Nb</b> Niobium	42 95.94 <b>Mo</b> Molybdenum	43 (98) <b>Tc</b> Technetium	44 101.07 <b>Ru</b> Ruthenium	45 102.91 <b>Rh</b> Rhodium	46 106.42 <b>Pd</b> Palladium	47 107.87 <b>Ag</b> Silver	48 112.41 <b>Cd</b> Cadmium	49 114.82 <b>In</b> Indium	50 118.69 <b>Sn</b> Tin	51 121.75 <b>Sb</b> Antimony	52 127.60 <b>Te</b> Tellurium	53 126.90 <b>I</b> Iodine	54 131.30 <b>Xe</b> Xenon	
55 132.91 <b>Cs</b> Cesium	56 137.33 <b>Ba</b> Barium	57 138.91 <b>La</b> Lanthanum	72 178.49 <b>Hf</b> Hafnium	73 180.95 <b>Ta</b> Tantalum	74 183.84 <b>W</b> Tungsten	75 186.21 <b>Re</b> Rhenium	76 190.23 <b>Os</b> Osmium	77 192.22 <b>Ir</b> Iridium	78 195.09 <b>Pt</b> Platinum	79 196.97 <b>Au</b> Gold	80 200.59 <b>Hg</b> Mercury	81 204.37 <b>Tl</b> Thallium	82 207.19 <b>Pb</b> Lead	83 208.98 <b>Bi</b> Bismuth	84 (209) <b>Po</b> Polonium	85 (210) <b>At</b> Astatine	86 (222) <b>Rn</b> Radon	
87 (223) <b>Fr</b> Francium	88 (226) <b>Ra</b> Radium	89 227.03 <b>Ac</b> Actinium	104 (261) <b>Rf</b> Rutherfordium	105 (262) <b>Db</b> Dubnium	106 (266) <b>Sg</b> Seaborgium	107 (262) <b>Bh</b> Bohrium	108 (265) <b>Hs</b> Hassium	109 (266) <b>Mt</b> Meitnerium	110 (271) <b></b>	111 (272) <b></b>	112 (277) <b></b>		114 (285) <b></b>		116 (289) <b></b>		118 (293) <b></b>	



- alkali metals
- alkaline earth metals
- transitional metals
- other metals
- nonmetals
- noble gases

Lanthanide series	58 140.12 <b>Ce</b> Cerium	59 140.91 <b>Pr</b> Praseodymium	60 144.24 <b>Nd</b> Neodymium	61 (145) <b>Pm</b> Promethium	62 150.36 <b>Sm</b> Samarium	63 151.96 <b>Eu</b> Europium	64 157.25 <b>Gd</b> Gadolinium	65 158.93 <b>Tb</b> Terbium	66 162.50 <b>Dy</b> Dysprosium	67 164.93 <b>Ho</b> Holmium	68 167.26 <b>Er</b> Erbium	69 168.93 <b>Tm</b> Thulium	70 173.04 <b>Yb</b> Ytterbium	71 174.97 <b>Lu</b> Lutetium
Actinide series	90 232.04 <b>Th</b> Thorium	91 231.04 <b>Pa</b> Protactinium	92 238.03 <b>U</b> Uranium	93 237.05 <b>Np</b> Neptunium	94 (244) <b>Pu</b> Plutonium	95 (243) <b>Am</b> Americium	96 (247) <b>Cm</b> Curium	97 (247) <b>Bk</b> Berkelium	98 (251) <b>Cf</b> Californium	99 (252) <b>Es</b> Einsteinium	100 (257) <b>Fm</b> Fermium	101 (258) <b>Md</b> Mendelevium	102 (259) <b>No</b> Nobelium	103 (262) <b>Lr</b> Lawrencium



Canadian Light Source  
Centre canadien de rayonnement synchrotron

THE BRIGHTEST LIGHT IN CANADA | [lightsource.ca](http://lightsource.ca)

[https://xdb.lbl.gov/Section1/Periodic Table/X-ray Elements.html](https://xdb.lbl.gov/Section1/Periodic%20Table/X-ray%20Elements.html)

# Beamlines

Far\_IR

Mid-IR

– organic compounds, bulk and microscopy

X-rays, bulk and microscopy

– Soft X-rays

– SGM, VLS-PGM, SM, QMSC, REIXS

Tendror X-rays

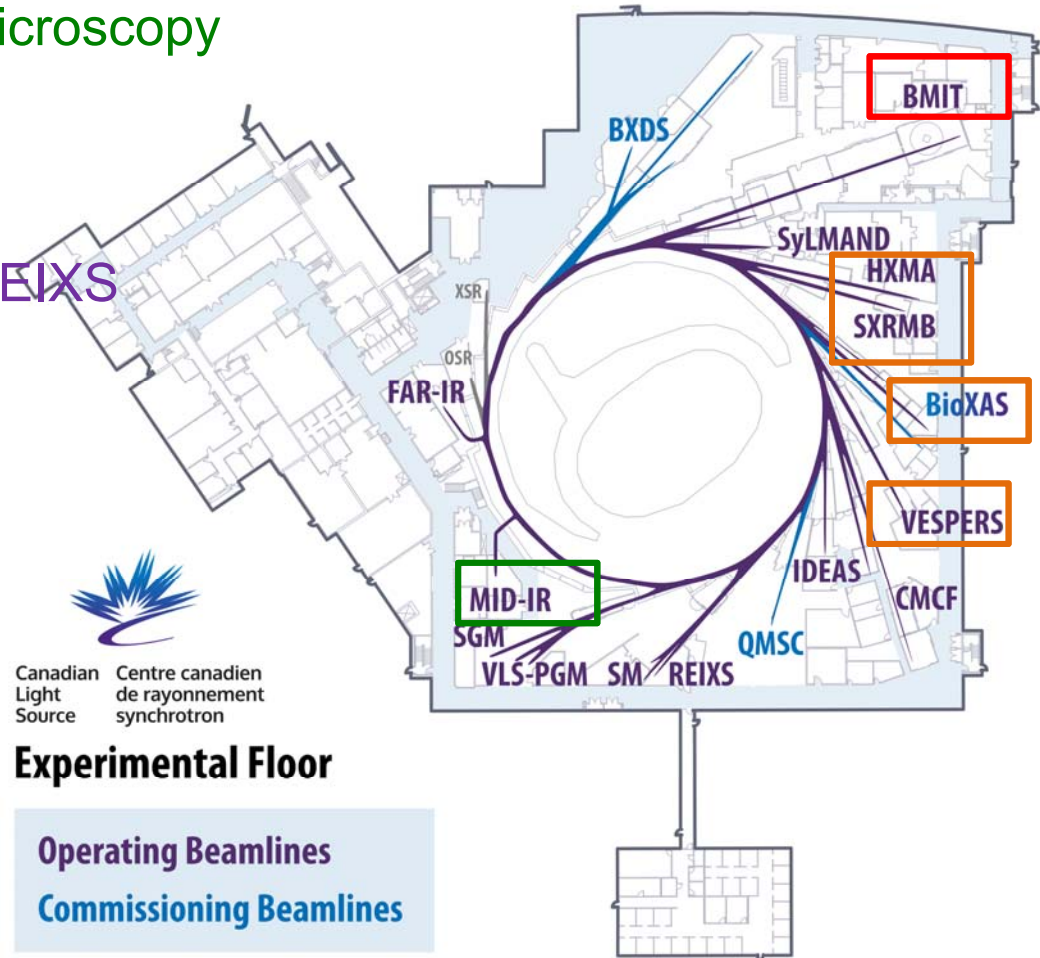
– SXRMB

Hard X-rays

– VESPERS, Bio-XAS, HXMA, Brockhouse, SyLMand

X-ray Computed tomography

BMIT (BM or ID)



Canadian Light Source  
Centre canadien de rayonnement synchrotron

<https://www.lightsource.ca/beamlines.html>

THE BRIGHTEST LIGHT IN CANADA | [lightsource.ca](http://lightsource.ca)

# Contact details

- CLS user office
  - [CLS.User-Office@lightsource.ca](mailto:CLS.User-Office@lightsource.ca); phone: 306-657-3700
- Bio/life sciences
  - Pawel Grochulski, [pawel.grochulski@lightsource.ca](mailto:pawel.grochulski@lightsource.ca), 306-657-3538
- Chemical and materials sciences
  - Feizhou He, [feizhou.he@lightsource.ca](mailto:feizhou.he@lightsource.ca), 306-657-3726
- Earth and Environment (Agriculture and Environment)
  - Chithra Karunakaran, [Chithra.Karunakaran@lightsource.ca](mailto:Chithra.Karunakaran@lightsource.ca), 306-657-3747
- Purchased access/Industrial sciences
  - Jeff Warner, [Jeff.warner@lightsource.ca](mailto:Jeff.warner@lightsource.ca). 306-657-3803



# Before and after beamtime

- Before beamtime....
  - Keep your samples ready
  - Plan and prioritize your experiments at the CLS according to the experimental objectives
  - Contact CLS beamline responsible/staff well in advance if you have questions
- After beamtime
  - Summarize your results within 3-6 months
  - Any reports or publications let CLS staff know and update in the CLS publication database



# Watch for....

- Annual users meeting
  - Workshops
- CLS awards
  - Graduate students travel award
  - G. Michael Bancroft PhD Thesis Award



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# Agriculture Website

<http://agriculture.lightsource.ca>

- FAQ, example proposals for different beamlines or techniques, proposal templates for different beamline with tips

The screenshot displays the Confluence interface for the CLS Agriculture Research page. The left sidebar shows a 'PAGE TREE' with categories like 'Capabilities', 'Contact Us', 'Different techniques', 'FAQ', 'How to Write Proposals - Seminar', and 'Sample Proposals'. The 'Sample Proposals' section is expanded to show a list of proposals, with 'Mid-infrared spectroscopy and spectromicroscopy' selected. The main content area shows the details of this proposal, including a title, a description, and a table of authors. The proposal is titled 'Mid-infrared spectroscopy and spectromicroscopy' and was created by Chithra Karunakaran on Feb 03, 2020. The proposal form includes fields for 'Title', 'Social Description', 'Research Area & Keywords', 'Abstract', and 'Keywords'. The 'Abstract' section contains text about profiling Arabidopsis mutants for epicuticular wax composition. The 'Keywords' section is empty. The proposal is marked as 'Submitted' and has a status of 'User Access Proposal for Cycle 27 (Jan-Jan 2018) - 009064'.



# Questions?



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