

Special Issue on TRIUMF's "Research Ramp Up" Plan

Dear Friends and Colleagues,

In accordance with guidance from health authorities, on June 1, 2020 TRIUMF began a gradual ramp up of activity on site. This process will begin slowly, with activity increasing in phases as the COVID-19 situation evolves. As has been TRIUMF's approach since the beginning of the pandemic, the primary focus remains on ensuring the health and safety of our people.

TRIUMF's back-to-work plans are framed by the "Restart Plan" put forward by the Province of British Columbia (BC), which aims to keep social interactions at <60% of normal until such time that a viable treatment or vaccine for COVID-19 is developed to keep hospital loads at a manageable level. The Province is encouraging work from home to limit workplace "contact number and intensity", and, when on-site activity is necessary, reduced employee interactions, e.g. by using staggered shifts or work hours and forgoing in-person meetings.

With these (and other) guidelines in mind, the COVID-19 Task Force at TRIUMF created two working groups (WG) to develop (i) general guidelines, protocols, and the implementation for all activities on site (Return to Site WG) and (ii) priorities, guidelines, and implementation protocols for ramping up on-site research activities (Research Ramp Up WG). The Research Ramp Up WG is chaired by Reiner Kruecken and includes (with their areas): Jens Dilling (Physical Sciences); Oliver Kester (Accelerators); Alexander Gottberg (Targets and Ion sources); Chris Ruiz (ISAC physics); Iain McKenzie (Molecular and Materials Science); Cornelia Hoehr (Life Sciences); Michael Trinczek (PIF & NIF); Daniel Yates (graduate students and post-docs); and Marcello Pavan (User Office).

All decisions regarding the ramp up of activities on the TRIUMF site will be made under consideration of the following Guiding Principles:

- Prioritize the community's health, wellness, and safety
- Maintain consistency with TRIUMF's Mission, Vision, and Values
- Structure on-site work in accordance with laboratory goals and objectives
- Encourage collaboration, fairness, and accountability across the lab
- Promote transparency, encourage dialogue, and commit to keeping the community informed
- Embrace continuous improvement and best practices implementation according to evolving guidance from health authorities

With these principles in mind, the priorities for ramping up on-site research activities will be based on the following guidance:

- Permit only activities that can be carried out safely under health authority guidelines
- Grant permission to conduct on-site research only to those who require on-campus resources and *cannot* work remotely

- Allow limited number of local (British Columbia) users during the initial phase and open TRIUMF to a limited number of Canadian users in July
- Give priority to graduate students needing to advance their thesis projects
- Consider equity in evaluating how to prioritize on-site research
- Consider impact on external funding and project timelines

These guidelines frame the efforts to maximize the scientific activities of the laboratory while minimizing the number of people on the site.

The ramp up of research activities is planned to occur in phases, which are summarized in the table below. The phases might evolve in response to lessons learned or external factors - any explicit dates are approximate and will be established as circumstances permit.

Phase 1, which lasted through May, focused on-site activities on the production of clinical medical isotopes, critical maintenance activities, and some essential infrastructure projects.

Phase 2, which has started June 1 and will last through the summer, will add a spectrum of research activities in a step-by-step approach. Only TRIUMF staff and designated visitors will have access to the site. This will allow us to ensure that the health and safety measures are working as we increase the number of people on site. Details on the guidelines and processes for visitors can be found on the TRIUMF COVID-19 webpage (<https://www.triumf.ca/COVID-19%20RESOURCES>).

This phase will include:

- Preparatory work for beam delivery
- High-priority technical and laboratory work
- TR-13 medical isotope production
- PIF & NIF irradiation services with local users
- ISAC-I experiments with stable beams

In July, we intend to start ISAC-I RIB experiments and enable users from across Canada to access TRIUMF facilities. We will communicate the beam schedule as well as the processes and requirements associated with access for users to TRIUMF shortly. No firm dates have been established at this time.

Phase 3 foresees the full breadth of research activities, albeit at reduced capacity, and the return of international users to TRIUMF where feasible. This phase will still see a reduced level of occupancy within the laboratory. The timing depends sensitively on the evolution of the COVID-19 situation. We must also be prepared for a situation that would force us to reverse some steps of the phased ramp up and return to stricter curtailment conditions. The medium-term plan is shown in more detail in the table below.

Phase/ Density	Phase 1 (March - May) Minimal	Phase 2 (June - TBD) Low	Phase 3 (Dates TBD) Medium
Occupancy	10-15%	~30-35%	~50-60%
On-site activities	<ul style="list-style-type: none"> Clinical isotopes Essential infrastructure Critical maintenance 	<ul style="list-style-type: none"> Clinical isotopes Essential infrastructure & projects Critical maintenance Hands-on research activities Medical isotope research PIF & NIF ISAC SIB ISAC RIB (foreseen mid/late-July) MuSR (after T2/M9 reconnection, possibly late August) 	<ul style="list-style-type: none"> Full spectrum of activities at reduced level in line with occupancy limits and health guidelines Office work staggered to limit density
Research activities	<ul style="list-style-type: none"> No on-site research Remote-only research COVID research exemptions Short term urgent access 	<ul style="list-style-type: none"> Limited on-site research Remote research whenever possible Some technical & lab work resumes Preparation for beam delivery (TR13, BL2A/2C/1B) Beam delivery and experiments Short term urgent access 	<ul style="list-style-type: none"> Full spectrum of research at reduced level Remote research preferred (staggered on-site presence) All technical & lab work resumes (subject to distancing and occupancy guidelines) Beam delivery (TR13, BL2A/2C/1B/1A) Experiments with user numbers within occupancy limits
Access control	<ul style="list-style-type: none"> Essential Personnel List Access Exemptions Essential Infrastructure Plans TRIUMF COVID-19 Screening Questionnaire for visitors and contractors 	<ul style="list-style-type: none"> Divisional quotas for on-site personnel Zone coordinators managing work schedule Access logging via online form TRIUMF COVID-19 Screening Questionnaire for visitors and contractors 	<ul style="list-style-type: none"> Divisional quotas for on-site personnel Zone coordinators managing work Access logging via online form TRIUMF COVID-19 Screening Questionnaire for visitors and contractors
Buildings	Minimal occupancy	Occupancy limits posted	Occupancy limits posted
Research Meetings	Online only	Online only	<ul style="list-style-type: none"> Meeting size constraints Use of general space per guidelines
Seminars	Online only	Online only	Some mixed in-person/virtual seminars
Common space & Cafeteria	Closed	<ul style="list-style-type: none"> Indoor spaces closed Some outside spaces open Cafeteria closed initially 	<ul style="list-style-type: none"> Common space use within occupancy limits and guidelines Cafeteria open w/ limited capacity
Grads / PDFs	Remote work only	Prioritize critical grad hands-on research	Yes
Users: BC	None	Yes, under guidelines and with training	Yes, under guidelines and with training
Domestic	None	Initially not, then under guidelines and with training	Yes, under guidelines and with training
International	None	Not yet	Yes, under guidelines and with training

Hygiene and training

For all staff and users returning to site, there will be an increased emphasis on personal hygiene and training. Hand sanitizing stations have been installed at all main site entry points distributed across the site, and TRIUMF is mandating hand washing prior to entry, and everyone will be encouraged to wear a face mask while moving through common areas. Staff and users will be asked to please clean their spaces before and after use. These and other measures will be reinforced with new mandatory site training requirements covering the additional protocols and practices during the pandemic.

I know we are all eager to resume our research activities as soon as possible and on behalf of the whole TRIUMF family, I would like to extend our best wishes for you and your families during these trying times. We are grateful for your support, as well as your patience. When you have an opportunity to come back to TRIUMF, please do so under full consideration of your own health as well as the health of everyone around you.

Thank you, and all the best.



Reiner Kruecken

Deputy Director, Research

Given the dynamic nature of the pandemic, it is important for all users to remain up to date with the latest site-wide communications. Users are invited to check the TRIUMF COVID-19 webpage regularly (<https://www.triumf.ca/COVID-19%20RESOURCES>) for important updates.

If you have any questions or concerns regarding the research ramp-up plan, please do not hesitate to reach out to Marcello Pavan (Head, User Program) at marcello@triumf.ca