

# UBC Reticulum: a province-wide network promoting surgical excellence and continuous improvement of general surgery in British Columbia

Patricia Balmes, BSc  
Hamish Hwang, MD  
S. Morad Hameed, MD, MPH

Accepted Apr. 17, 2023

**Correspondence to:**

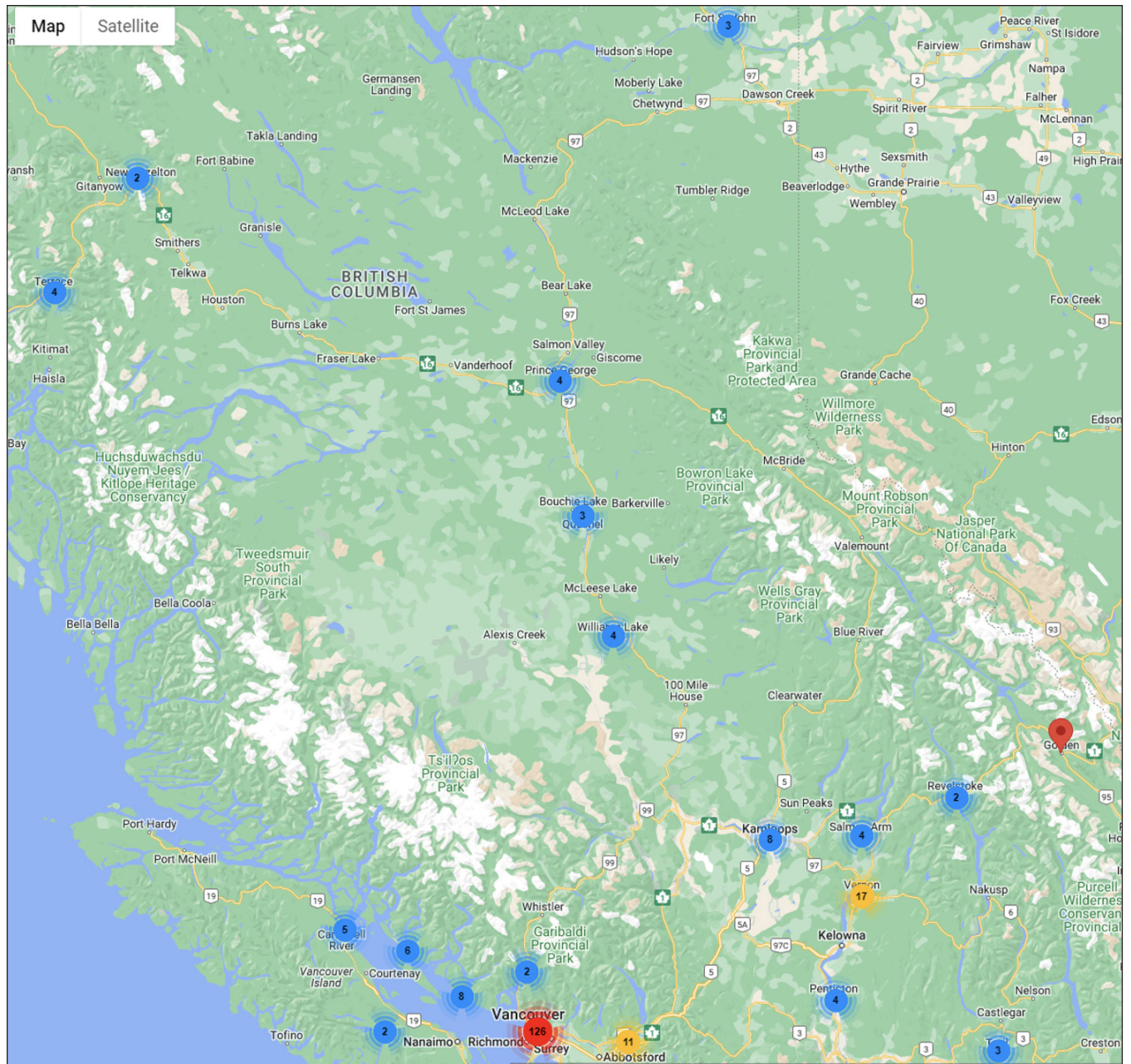
P. Balmes  
11123-2775 Laurel St  
Vancouver BC V5Z 1M9  
Patricia.balmes@vch.ca

**Cite as:** *Can J Surg* 2023 July 27;66(4).  
doi: 10.1503/cjs.004123

## SUMMARY

The University of British Columbia's (UBC) Division of General Surgery is a diverse group, including both academic and community surgeons. Since its launch in 2019, the UBC Reticulum website has been a transformative tool in engaging general surgeons, fellows, residents, students and researchers through its many features and user-created content, such as its messaging board, Netter, and Connect feature, which connects members based on their specialty, location, procedures and interests. Reticulum also serves as a valuable repository of educational resources and is instrumental in the division's goal of improving continuing medical education; the Reticulum mentorship grant program provides financial support for practising surgeons pursuing peer-mentorship projects. UBC Reticulum serves as a model for how to coordinate surgical education, research and quality improvement within diverse provincial divisions.

**T**he University of British Columbia (UBC) Reticulum website was created to provide an online platform for the diverse and geographically distributed network of general surgeons, residents and associated administrators and researchers in British Columbia. Created with funding from the UBC Strategic Investment Fund and launched in May 2019, Reticulum has been successful in connecting and engaging the UBC Division of General Surgery. Any member can contribute content, making the site a living forum of ideas. Important meetings, such as province-wide rounds and symposia, are regularly shared and allow users to discuss key issues in real time. Netter, a message board similar to a Twitter feed, allows members to regularly communicate with the division on topics that include billing tips, updates to clinical guidelines and links to resources. The Connect function allows surgeons in the division to communicate with colleagues across the province, searching by name, location, subspecialty, interests and the procedures they perform. A map of all hospitals with general surgeons throughout the province is included in this function (Figure 1 and Figure 2). Reticulum's role as a tool for province-wide communication was critical during the COVID-19 pandemic,<sup>1</sup> allowing for the coordination of care through regular, province-wide situation reports and the surgical oncology transfer network map, which tracked hospital closures in real time throughout the province. Reticulum has also been a useful tool for elevating teaching and continued surgical education. The Video feature hosts recordings of both province-wide and specialty-based rounds, as well as videos on a wide range of topics such as refreshers on surgical technique, innovations in surgical care and province-wide contributions to research (Figure 3). Reticulum also features an Airbnb-inspired locum matcher (Figure 4) as well as postings for full- and part-time employment positions. Netter posts, videos, presentations, research projects and profiles can all be tagged according to topic, allowing users to receive customized notifications and to explore topics of



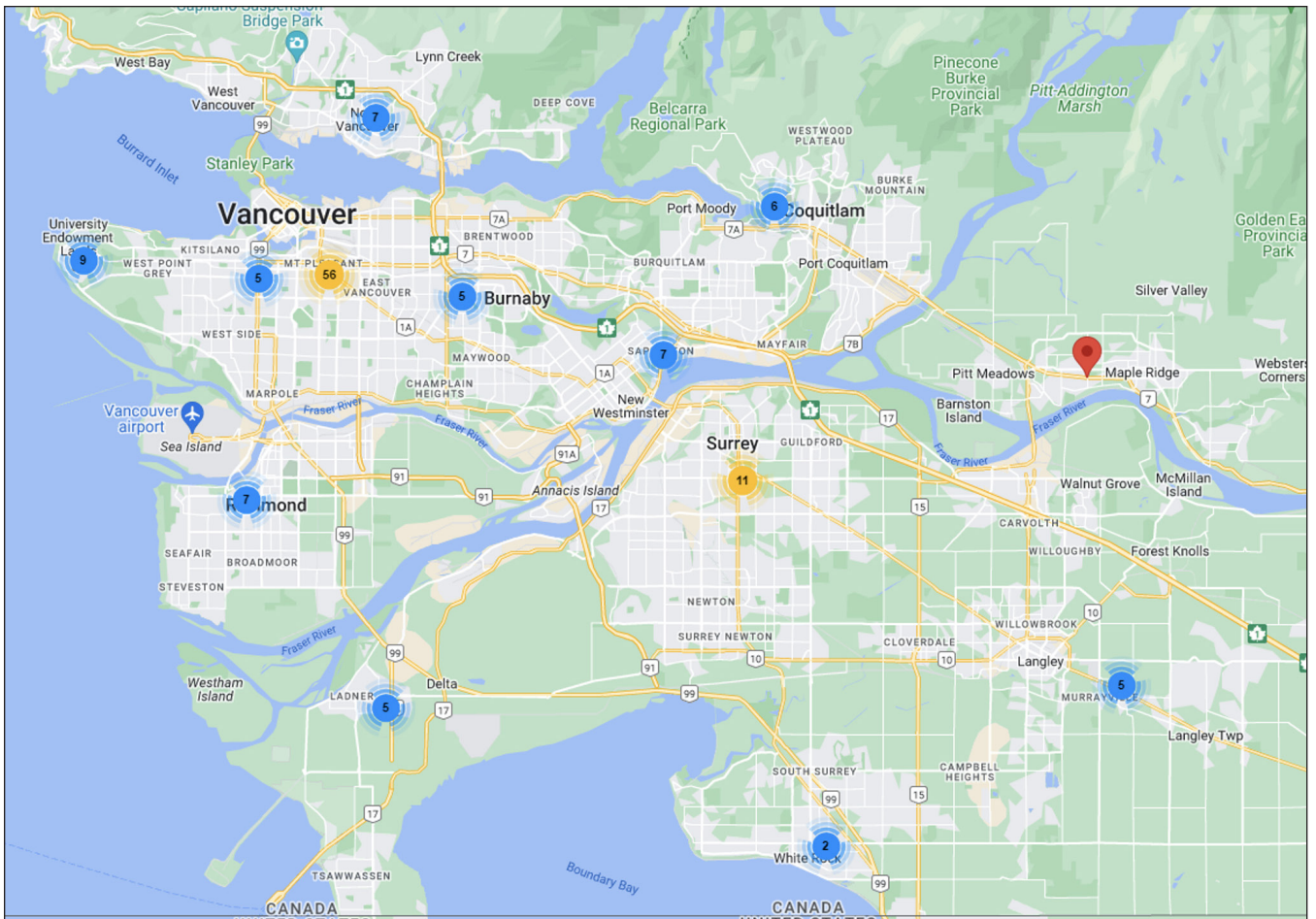
**Fig. 1.** The University of British Columbia (UBC) Reticulum website map showing the provincial network of general surgeons in BC. Each circle indicates the number of general surgeons in that geographical area, with yellow circles indicating high concentrations of general surgeons and red indicating extremely high concentrations of general surgeons.

interest while maintaining busy clinical practices. Topic tags include the Canadian Association of General Surgeons, planetary health, medical education, billing and economics and quality improvement, as well as subspecialties such as trauma, colorectal surgery and breast surgery.

Reticulum currently has around 400 users, including 211 surgeons and locums. This is an impressive number for a division with 268 general surgeons in practice according to Doctors of BC. There are anywhere from

800 to more than 1000 visits to Reticulum per month, highlighting its value to the divisions' members. The overall use of certain features further highlights the values and goals of the division, with more than 50% of site visitors viewing educational videos, 25% browsing the job and locum-matcher pages and around 25% visiting the Connect page to communicate with colleagues for patient care or shared interests.

To further promote a culture of collegiality and lifelong learning, Reticulum has its own mentorship



**Fig. 2.** A zoomed-in view of the University of British Columbia (UBC) Reticulum website map function showing general surgeons in Greater Vancouver.

grant program,<sup>2</sup> which meets the surgical needs of local communities by supporting peer-mentorship projects among practising physicians for in-demand and advanced surgical techniques. For practising surgeons, time constraints and lack of financial compensation are some of the greatest barriers to additional training and education. Sponsored by industry partners and by General Surgeons of BC, this mentorship program helps mitigate costs involved in arranging and conducting mentorship: time away from practice, travel expenses, administrative time arranging temporary privileges and time spent preparing training materials. The application process for the mentorship program is straightforward, overseen by a committee of surgeons.

The mentorship program has received interest and support from the division. Projects have ranged from mentorship pairs between tertiary and community surgeons to mini-fellowship with another specialty group, and 100% of mentors and mentees have agreed or strongly agreed that the program met their objectives.

One participant shared:

The ability to provide coaching for complex surgical care and real in-person mentorship for the operative procedure is a unique and invaluable experience. I believe this allows the transfer of complex surgical knowledge to receptive early or mid-level career surgeons, which improves the care for patients in [BC]. This mentorship event will benefit the patient, but more importantly, allows the transfer of surgical knowledge that will benefit patients for the duration of the mentored surgeon's career.

Another shared:

This project allowed me to work 1:1 with a world leader in this particular procedure, and beyond that, establish a professional network with them and their team that will benefit me and my own patients locally for years to come.

By facilitating collaborations and coordinating our province-wide clinical, research and educational efforts, Reticulum and its mentorship grant program are powerful tools with which the division is making effective and long-lasting changes to surgical care in BC. The research advancements, innovation and transformative action

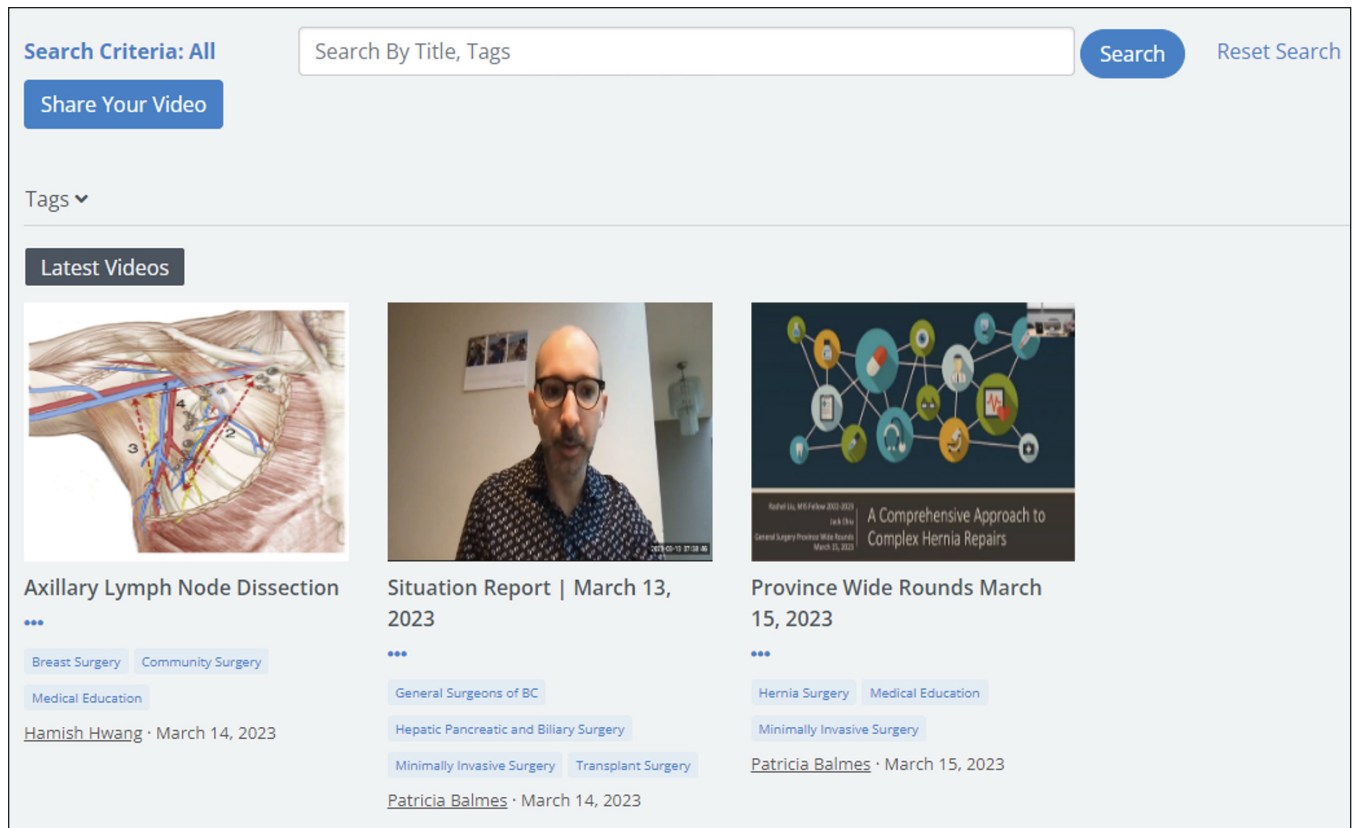


Fig. 3. A screenshot of the searchable video repository on the University of British Columbia (UBC) Reticulum website.

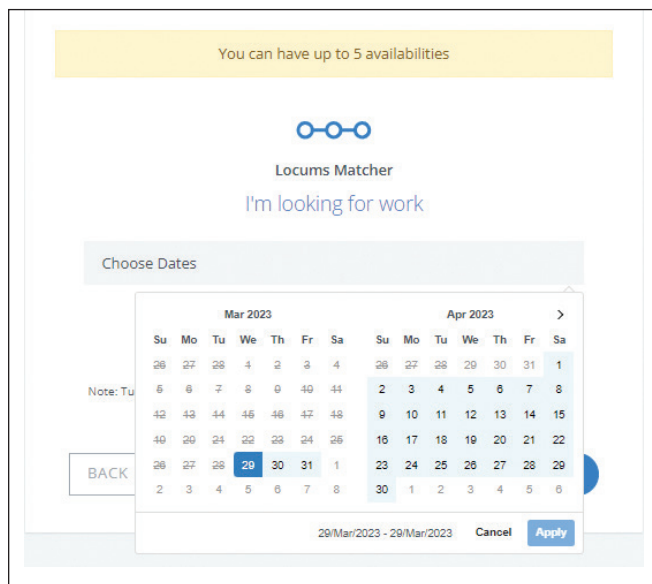


Fig. 4. A screenshot of the locum matcher feature of the University of British Columbia (UBC) Reticulum website.

being taken in the province serve to benefit the quality of care in BC and promote a culture of connectedness, collaboration and commitment to excellence. In addition, Reticulum may be the first platform of its kind, owing to the division's unique situation of having only 1 medical academic institution to rally under in BC, but

it may not be the last one as there are other provinces who have created provincial administrative surgical organizations.<sup>3</sup> Reticulum serves as a model for how coordinated action in surgical education, research and innovation is possible for diverse provincial networks, such as general surgery.

**Affiliations:** Division of General Surgery, University of British Columbia, Vancouver, BC (Balmes, Hwang, Hameed).

**Competing interests:** None declared.

**Contributors:** All of the authors contributed to the conception and design of the work, drafted the manuscript, revised it critically for important intellectual content, gave final approval of the version to be published and agreed to be accountable for all aspects of the work.

**Content licence:** This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY-NC-ND 4.0) licence, which permits use, distribution and reproduction in any medium, provided that the original publication is properly cited, the use is noncommercial (i.e., research or educational use) and no modifications or adaptations are made. See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

## References

1. Hwang H, Manoharan S, Zabolotniuk T, et al. UBC Reticulum: a novel website connecting general surgeons in BC during the COVID-19 crisis. *B C Med J* 2020;62:172-3.
2. Hwang H, Sampath S, Hameed SM. General surgeons of British Columbia launches provincewide peer mentorship program. *B C Med J* 2022;64:250-1.
3. Mendez I, Ulmer B, Dust W. Saskatchewan: Canada's first provincial department of surgery. *Can J Surg* 2022;65:E825-31.