

Resource Summary Report

Generated by PRECISE-TBI on Aug 1, 2026

Arthur Prochazka Laboratory, University of Alberta

RRID:SCR_002747

Type: Tool

Proper Citation

Arthur Prochazka Laboratory, University of Alberta (RRID:SCR_002747)

Resource Information

URL: <http://www.ualberta.ca/~aprochaz/Index.html>

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Description: The lab of Arthur Prochazka, whose research focuses on routing electrical current from surface electrodes to deep-lying nerves using implanted conductors. His research mostly focuses on muscle physiology. Current fields of research: * Stimulus Router System: A new family of implanted neuroprostheses. It comprises an implanted lead that picks up some of the current delivered through the skin by a surface stimulator and delivers it to a target nerve via a nerve cuff. The SRS has the advantages of an implanted stimulator: selectivity, reproducibility and convenience, at a fraction of the cost * Bionic Glove: Hand opening and closing stimulator for C5-C6 tetraplegic people. It is based on Functional Electrical Stimulation (FES). * In-home Telerehabilitation: Providing exercise sessions over the internet. * Interactive Receptor Model: An online model explaining muscle spindles and tendon organs. * Spinal Motoneuron Activity During Gait * Robocats: Mathematical models for locomotion. * Rigidity Analyzer: A better means of assessing rigidity. * General Research: Fundamental questions in our field of neurophysiology. * Spinal Cord Microstimulation: Restoring bladder function after spinal cord injury.

Abbreviations: Arthur Prochazka's Lab

Synonyms: University of Alberta Arthur Prochazka Laboratory

Resource Type: portal, organization portal, data or information resource, laboratory portal

Keywords: electrical, electrode, bionic glove, conductor, convenience, current, hand, implant, implanted, injury, lab, microstimulation, motoneuron, muscle, nerve, nerve cuff, neurophysiology, neuroprosthesis, organ, physiology, reproducibility, research, rigidity, robocat, selectivity, spinal, spinal cord, spindle, stimulator, target, telerehabilitation, tendon, tetraplegic

Availability: Free, Freely available

Resource Name: Arthur Prochazka Laboratory, University of Alberta

Resource ID: SCR_002747

Alternate IDs: nif-0000-24047

Record Creation Time: 20220129T080215+0000

Record Last Update: 20260801T042521+0000

Ratings and Alerts

No rating or validation information has been found for Arthur Prochazka Laboratory, University of Alberta.

No alerts have been found for Arthur Prochazka Laboratory, University of Alberta.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 4 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

Alfredsson M, et al. (2025) Detection of *Borrelia burgdorferi* (s.l.) in *Ixodes ricinus* ticks collected in Iceland. *Parasites & vectors*, 18(1), 176.

Noda H, et al. (2024) The Scabbard of Excalibur: An Allegory on the Role of an Efficient and Effective Healthcare System under Universal Health Coverage during the Pandemic Response. *Healthcare (Basel, Switzerland)*, 12(10).

Kohl G, et al. (2024) "It's just getting the word out there": Self-disclosure by people with young-onset dementia. *PloS one*, 19(9), e0310983.

Giulietti L, et al. (2020) Molecular Characterization of the Myoliquefactive Fish Parasite *Kudoa mirabilis* (Cnidaria, Kudoidae) from SE Indian Ocean and Its Phylogenetic Relationship with the *Kudoa thyrsites* Species Complex. *Microorganisms*, 8(9).