

UNIVERSITY OF
WATERLOO



QNFCF

Quantum-Nano Fabrication & Characterization Facility

Core Scientific Research Platform

VISION

**Enabling world-class research via
state-of-the-art facilities and professional operations**

MISSION

We are committed to operating a world-class nanofabrication and characterization facility to professional standards, to the combined benefit of the University of Waterloo's stakeholders, researchers, and collaborators

Objectives:

1. Maintain excellent infrastructure & professional operations
2. Communicate & apply policies with consistency and transparency
3. Maintain lab equipment to industry standard best practices
4. Continuously monitor and mitigate process contamination risks
5. Continuously strive to provide:
 - a) Excellent hands-on training
 - b) Nanofabrication process support
 - c) Characterization expertise & guidance
 - d) Stable baseline process technologies
 - e) Well-documented equipment operating procedures & processes
 - f) Rigorously controlled labs

Organizational Chart

Charmaine Dean
Vice-President, Research & International
Office of Research

Users Advisory Committee:
David Cory Na Young Kim
Jonathan Baugh Michael Reimer
German Sciaini Chris Wilson
Tong Leung
Vito Logiudice (Chair)

Vito Logiudice
Director, QNFCF

Nathan Nelson-Fitzpatrick
Manager, Nanofab &
Characterization Engineering

Taso Alkiviades
Manager, RAC1 & RAC2
Labs & Technologist

Guillermo Gomez
Manager, Finance &
Administration

Lino Eugene
Nanofabrication
Process Engineer

Rod Salandanan
Senior Equipment
Technologist

Stefan Heinemann
TEM Facility
Microscopist

John Nugent
RAC1 & RAC2 Lab
Technologist

TBD - 2022
RAC2 Thin Films
Growth Scientist

Colleen Kissack
Cleanroom Cert &
Inventory Specialist

Emma DeSousa
Finance & Admin
Coordinator

Co-op Student 1
Special projects

Ken Speirs
Senior Equipment
Technologist

Co-op Student 4
Special projects

Co-op Student 5
Special projects

TBD - 2022
Cleanroom Cert &
Inventory Specialist

Greg Holloway
E-Beam Litho Senior
Scientist

Matt Scott
Senior Equipment
Technologist

Co-op Student 2
Special projects

Sandra Gibson
Nanofabrication &
Charact Scientist

Co-op Student 3
Special projects

Core Team

Process Engineering & Characterization

Manager

Nathan Nelson-Fitzpatrick

Nanofab Process Specialist & Engineer

Lino Eugene

Electron Beam Lithography Scientist

Greg Holloway

Nanofab & Characterization Scientist

Sandra Gibson

Shared responsibilities:

- Optimization of equip & process performance
- Recipe/process development/characterization
- Technology integration
- Process reviews & approvals
- Equipment access reviews & approvals
- Equipment qualifications & SPC
- Operating & process recipe manuals

Equipment Maintenance, Repair, Training

Equipment Technologists

Rod Salandanan

Matt Scott

Ken Speirs

Shared responsibilities:

- Equipment optimization & performance enhancements
- Equipment preventative maintenance
- Equipment repairs
- Equipment operator training

Core Team

QNC TEM/FIB Satellite Labs

TEM Facility Microscopist

Stefan Heinemann

Responsibilities:

- Operation & maintenance of TEM/FIB labs & equipment
- Prepare & analyze samples for broad user base
- Train TEM & FIB users
- Identifying & implementing new TEM/FIB techniques
- Produce reports & presentations
- Enforce operating & safety policies

Finance & Administration

Manager, Finance & Administration

Guillermo Gomez

Finance & Administration Coordinator

Emma DeSousa

Shared responsibilities:

- Manage payment of monthly invoices
- Create & manage user accounts
- Create & manage access FOBs and ID badges
- Manage all orders related to QNFCF operations
- Track & categorize expenses against budget
- Pay bills & reconcile accounts
- Create/maintain facility cost model
- Generate detailed monthly operating reports
- Publish annual financial reports

Core Team

Cleanroom Operations

Cleanroom Certification & Inventory Specialists

Colleen Kissack

Responsibilities:

- Maintain & track cleanroom certification
- Maintain gowning apparel & other inventories
- Chemical waste removal and disposal
- Documentation of all related procedures
- Safety training
- Enforcement of operating & safety policies
- Assist team as needed (high demand & special projects)

RAC1 & RAC2 Satellite Labs

Manager, RAC1 & RAC2 Labs & Technologist

Taso Alkiviades

Equipment Technologist

John Nugent

Shared Responsibilities:

- Equipment installations
- Equipment optimization & enhancements
- Equipment preventative maintenance
- Equipment repairs
- Equipment operator training
- Process development for research activities
- Operation of scientific processes
- Research infrastructure development
- Resident lab experts