The **Mycology Section** is cataloguing mycologists and their research in the various regions in Canada. The degree sought is in brackets after researcher's name

The **Directory of Quebec Mycologists** has been compiled by Peter Neuman of the Université de Montréal.

BIOTECHNOLOGY RESEARCH INSTITUTE: MONTREAL, NATIONAL RESEARCH COUNCIL OF CANADA

Wayne Levadoux:
Enzyme formation by *Mucor miehei.*
Fermentation and gene expression of *Saccharomyces cerevisiae*

Ian D. Reid
Lignin biodegradation; Lignin-degrading and modifying enzymes.
Biological bleaching of kraft pulp.

Kartar Singh
Production, purification, crystallization and characterization of a protease from a thermophilic fungus *Myriococcum albomyces*
Sporulation of fungi in submerged culture - process optimization

S.-H. Shen, Denis Groleau, Marie-Reneé de Roubin
Production des protéines hétérologues par *Hansenula polymorpha.*

JARDIN BOTANIQUE DE MONTRÉAL

Marc St-Arnaud
Influence de la mycorrhize sur le développement des plantules d'orchidées.
Epidémiologie de *Venturia inaqualis.*

CONCORDIA UNIVERSITY

Paul Widden
Ecology of forest soil microfungi; ecology of *Trichoderma* species.
Role of VAM fungi in sugar maple stands.

McGILL UNIVERSITY (MACDONALD COLLEGE)

A. C. Kushalappa
Development of forecast systems for *Cercospora* blight of carrots and *Septoria* blight of celery.
Partial resistance to crown rust of oats.

O. Carisse (M.Sc.)
Factors influencing infection and effect of inoculum levels on carrot blight development.

R. Arcelin (M.Sc.)
Partial resistance to *Cercospora* blight of carrots.

S. Brière (M.Sc.)
Partial resistance in oats to crown rust.

D. Mathieu (M.Sc.)
Factors influencing infection, and resistance to *Septoria* blight of celery.

E. Martinez-G. (Ph.D.)
Development of a forecast for *Septoria* blight of celery.

Diane E. Mather
Grain crop breeding, including breeding for disease resistance.
Resistance to *Fusarium* ear rot of maize. Partial resistance to crown rust of oats.

Lana M. Reid (Ph.D.)
Mechanisms and inheritance of resistance to *Fusarium* ear rot of maize.

Ralph H. Estey (Emeritus Professor)
History of mycology in Canada.

UNIVERSITÉ DE MONTRÉAL

Peter Neumann (Dépt. de sciences biologiques)
Biologie de *Venturia inaequalis* et son contrôle par *Trichoderma* spp. Interaction hôte champignons phytopathoenèse. Étude de *Phytophthora cryptogea* sur *Gerbera jamesonii* en culture *in vitro.*

Mohamed Bensaci (M.Sc.)
Résistance induite de *Trichoderma* spp. aux fongicides.

Liliana Ramirez (M.Sc.)
Sélection de cultivars irradiés de *Gerbera* résistants à *Phytophthora cryptogea.*

Geneviève Roy (M.Sc.)
Culture *in vitro* de *Ulmus americana* et sensibilité contre *Ophiostema ulmi.*

Paul Comtois (Dépt. de géographie)
Aéromycologie, isolation et identification des spores des champignons allergènes.

UNIVERSITÉ DU QUÉBEC À TROIS RIVIERES

Guy Charpentier
Research on entomopathogenic fungi for black fly (Simuliidae) and mosquitoes (Culicidae) and the use of entomopathogenic fungi and mycotoxins for the control of these insects.
This research includes isolation and identification of pathogenic fungi, laboratory production of the fungi and bioassay on insect larvae, field trials and impact

study on non-target fauna in the stream or in stagnant water.

UNIVERSITÉ LAVAL

Joseph Arul

Physical and chemical treatments for disease control in postharvest fruits and vegetables.

Richard R. Bélanger (Research Associate)

Biocontrol of *Sphaerotheca pannosa* f. sp. *rosae* with the antagonists *Tilletiopsis washingtonensis, Sporothrix flocculosa* and *S. rugulosa.*

Screening geranium cultivars for *Pythium ultimum* resistance.

Production of toxins by *Pythium ultimum.*

Development of tomato cultivars for *Fusarium oxysporum* f. sp. *radicis-lycopersici* resistance.

Nicole Benhamou

Biological control of *Fusarium oxysporum* f. sp. *radicis-lycopersici,* the agent of tomato crown and root rot, using antagonistic fungi isolated from peat.

Biology, physiology and biochemistry of vascular wilt diseases caused by pathogenic fungi.

Ultrastructure and cytochemistry of host-pathogen interactions.

Biochemical and immunocytochemical investigations of plant defense reactions against pathogenic fungi: Implication of plant hydrolases (chitinases, B-1,3-glucanases, lysozyme), glycoproteins, hydroxyproline-rich glycoproteins (HRGP), phenolic compounds, lignin, and pathogenesis-related proteins (PR proteins) in resistance of plants against fungal attack.

Pierre-Mathieu Charest

Plant cell and molecular biology, mainly in the study of hostfungal parasite interactions: *in vitro* kinetic study of pectinase and cellulase secretion by crop pathogenic fungi such as *Fusarium oxysporum* f. sp. *radicis-lycopersici* and other closely related species. The study of phenotypic and genotypic variations of the *Rhizoctonia solani* complex. The characterization of several isozymes, including some that are involved directly in pathogenesis are investigated by means of electrophoresis in order to study phenotypic variations among the various anastomosic groups (AGs) of this species. Study of DNA restriction fragment length polymorphism (RLFP) of *R. solani* by means of Southern blot hypridization with rDNA probes to determine the phenotypic and genotypic correlations between AGs and host plants or site field conditions. Cloning of nuclear and mitochondrial DNA of *R. solani* to be used as genetic markers.

Suma Jabaji-Hare (Post Doc.)

Patrice Blais (Ph.D.)

Jérôme Laroche (M.Sc.)

Daniel Dostaler

Le développement du pourridié fusarien (*Fusarium oxysporum radicis-lycopersici*) de la tomate de serre en culture hydroponique.

L'incidence du *F. oxysporum radicis-lycopersici* du *Pyrenochaeta lycopersici* (racines liégeuses) et des endomycorhizes à vésicules et arbuscules (*Glomus intraradices*) chez la tomate de serre.

Substances de croissance et pourridié fusarien de la tomate de serre.

Caractérisation du *Verticillium albo-atrum* chez la pomme de terre et la luzerne. Maladies fongiques des céréales: *Drechslera teres, Fusarium graminearum* (et mycotoxines), *Typhula ishikariensis.*

Ahmed El Gaouth (Ph.D.)

Chitosan and chitosan fragments for disease control in postharvest produce.

Julien Mercier (Ph.D.)

Induced resistance to fungal infection in stored carrots by elicitation of phytoalexins.

Gyorgy-Miklos Olah

Études taxonomiques et physiologiques des champignons hallucinogènes, (*Panaeolus, Stropharia, Psilocybe*).

Biodégradation et humification, étude micromorphologique ultrastructurale de la dégradation des matières organiques par des organismes fongiques.

Bioconversion des matières de nature cellulosique par des champignons comestibles (pleurote).

Culture industrielle du *Pleurote québécois.*

Collection mycologique et identification des champignons du Québec et aux Antille Françaises.

Production de champignon de couche *Agaricus bisporus*, compostage et conservation du substrat cordé (thèse).

Caractérisation ultrastructurale et cytochimique des champignons mycorhizateurs VA, études du rôle des acides fulviques et ses dérivés dans la relation physiologiques hôte/symbiote.

Rathy Ponnampalam (Research Associate)

Chemical treatments for disease control in postharvest produce.

AGRICULTURE CANADA SAINT-JEAN-SUR - RICHELIEU

Robert Pelletier
Evaluation de la résistance de *Venturia inaequalis* aux fongicides inhibiteurs de la synthèse d'ergostérole, modellisation: durée de mouillage/période d'infection par *V. inaequalis* dans des vergers de pommiers standards et semi-nains.

AGRICULTURE CANDA SAINTE-FOY

André Comeau
Relations entre le VJNO (BYDV), les stress causés par l'hiver et les maladies fongiques (*Fusarium, Gerlachlia, Typhula* etc.)

Roger Lalande
Biological control of fungal diseases by bacteria associated with plant roots (PGPR).

Claude Richard
Étiologie du pourridié fusarien de la luzerne. Sélection génétique de la luzerne et du trèfle rouge pour la résistance aux maladies (*Phytophthora,Verticillium, Fusarium, Phoma*). Action combinée des maladies et du froid sur la luzerne.

FORET CANADA

Gaston Laflamme
Champignons endophytes, chancre scléroderrien.

André Lavallée
Pathologie forestière. Biologie et épidemiologie de la rouille vesciculeuse du Pin blanc.

David Perry
Champignons entomophages

G. B. Ouellette
Maladie hollandaise de l'orme, chancre scléroderrien.

René Cauchon (Conservateur de l'herbier des champignons)
Diagnostic des maladies d'arbres.

MINISTERE ÉNERGIE ET RESSOURCES, GOUVERNMENT DU QUÉBEC

Louise Innes
Diagnostic des maladies d'arbres.

CENTRE DE RECHERCHES AGRICOLES, SAINT-HYCINTHE

Alain Devaux
Epidélmiologie et contrôle de la fusariose du blé.

Léon Tartier
Développement et contrôle du mildiou et de la verticillose de la pomme de terre.

LABORATOIRE DE DIAGONOSTIC, MAPAQ, SAINTE-FOY

Gérard Gilbert, Michel Lacroix
Identification des champignons pathogènes, mise au point des techniques d'identification.

PREMIER RESEARCH CENTRE

Michel Caron
Research on the applications of mycorrhizal (endo-and ecto-) fungi in horticulture, agriculture and forestry.

Dominique Le Quéré
Study on the suppressive potential of sphagnum peat moss - Diseases under study are *Pythium* damping off of cucumber (*P. ultium*) and collar and root rot of tomato (*Fusarium oxysporum* f. sp. *radicis-lycopersici*).

Susan Parent
Endomycorrhizae - bio-fertilizers; Sphagnum peat moss growing medium; plant growth improvement.

CHERCHEURS SANS AFFILIATION

René Pomerleau, Québec
Flore mycologique de l'Ést d'Amérique du Nord.

Maurice Thibault, Québec
Flore mycologique du Québec.