



UNIVERSITY
OF MANITOBA



DIAGNOSTIC SERVICES
MANITOBA

Clinical Biochemistry Post-Doctoral Training Program Handbook

University of Manitoba
Faculty of Medicine, Postgraduate Medical Education

Diagnostic Services Manitoba
Clinical Biochemistry & Genetics

June 2013

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Section 1: OBJECTIVES

The objective of the Program is to train individuals at the post graduate level (M.D. or Ph. D.) in the field of Clinical Chemistry leading to certification by the Canadian Academy of Clinical Biochemists or equivalent U.S. based organization. The program is intended to provide training equivalent to that required by the College of Physicians and Surgeons of Canada for the fellowship in Medical Biochemistry. It will therefore include practical, professional and didactic training in all aspects of laboratory medicine necessary to provide the resident with the skills necessary to independently direct a clinical chemistry laboratory.

This manual is intended to provide the resident with ready access to practical information on the content of the program itself, and with resources that will assist with successful completion of the program.

Section 2: PROGRAM ORGANIZATION

The program has operated as part of Post Graduate Medical Education in the Faculty of Medicine at the University of Manitoba since the mid 1970's and is based primarily in the Departments of Clinical Chemistry and Genetics at Health Sciences Centre and Clinical Biochemistry at St. Boniface General Hospital. Both institutions are tertiary care teaching hospitals affiliated with the University of Manitoba with a total bed number of approximately 1,500.

Diagnostic Services Manitoba (DSM) was created in 2002 as the not-for-profit corporation responsible for all of Manitoba's public laboratory services and for rural diagnostic imaging services. There are eight Clinical Biochemists that are responsible for various areas of clinical chemistry.

[DSM website](#)

<http://www.dsmanitoba.ca>

[PGME website](#)

http://webapps.cc.umanitoba.ca/calendar08/graduate_studies/programs/postgrad_medicine.asp

<http://umanitoba.ca/faculties/medicine/education/pgme/index.html>

Section 3: TRAINEE SELECTION

a) The candidate must have a Ph.D. degree in Chemistry, Biochemistry, Pharmacology, Immunology, Physiology, or other medical science, or an M.D. degree from a recognized university. Applications are reviewed by the program selection committee and candidates are short-listed for an interview and lecture presentation. Applications will be accepted from Canadian citizens or those with Landed Immigrant status.

b) The candidate should have taken courses or demonstrated experience in the following areas:

- i) General and Organic Chemistry
- ii) Analytical Chemistry
- iii) Physics
- iv) Biology/Pathology
- v) Biochemistry
- vi) Statistics

Section 4: TRAINEE COMPENSATION AND BENEFITS

Remuneration, Benefits, Entitlements

Salaries, benefits, and other entitlements are governed by a comprehensive collective agreement between PARIM and the Winnipeg Regional Health Authority (WRHA). See website for benefits not listed below.

Remuneration for residents in the Post Graduate Medical Education at the University of Manitoba is negotiated by the Professional Association of Residents and Interns of Manitoba (PARIM). Starting salaries for residents in Clinical Chemistry (PGY2 level) are equivalent to that for other residents (approximately \$61,000 in 2011).

Vacation

As per Collective Agreement one month vacation time is allocated to be taken within each 12 month term.

A comparison of current salaries and benefits for medical residency programs in all provinces can be found on the CaRMS website at www.carms.ca/eng/r1_program_salaries_e.shtml .

Section 5: PROGRAM OUTLINE

YEAR 1

The first year of the program is intended to provide the resident with an overview of Clinical Chemistry laboratory operations and a general understanding of human disease. Rotations include:

Sample and Data:

Central laboratory processes - comparison of processes across laboratories of differing size and function and hands-on experience - sample labelling and receipt, patient registration, test accessioning, requisitions, referred-in, referred-out, laboratory information systems, test information manuals, lab reports, pre-analytical and post analytical errors, laboratory safety, phlebotomy

Automated Chemistries:

Comparison of processes at hospital labs of differing size and hands-on experience: instrumentation (operation, maintenance, troubleshooting), workflow, quality practices, test methodologies, critical results, auto-verification, method protocols, accreditation requirements, specimen archiving, urinalysis, clinical utility of tests.

Toxicology:

Instrumental and analytical aspects of clinical, medical, and forensic toxicology. Poisons, poisoned patients, treatment. Roles of poison-control centre, RCMP laboratory, Therapeutic drug monitoring

Molecular laboratory:

Molecular techniques, genetic diseases

Metabolic Diseases laboratory:

Diseases of inborn errors of metabolism and the laboratory techniques for their diagnosis

Specialized procedures:

RAST testing, Hemoglobinopathy investigation, RIA, Biogenic Amine quantitation, cholinesterase phenotyping, Thiopurine methyltransferase phenotyping, Porphyrias, metal analyses, gastro-intestinal investigations

YEAR 2 and 3

The second and third years of the program largely involve clinical rotations and external laboratory rotations that are intended to provide the resident with a comprehensive understanding of clinical disorders related to the field of Clinical

Chemistry and the utilization of laboratory test results in the clinical management of the patient. Upon completion of these rotations, the resident will have covered all topics outlined in the CACB Syllabus for a postgraduate training program in Clinical Biochemistry (<http://www.csc.ca/themes/csc/uploads/CACBSYLLABUS2005.pdf>) and be prepared to direct a small-medium size clinical laboratory. The trainee is expected to identify cases of interest during these rotations and link them to laboratory testing. Regular presentations of these cases are an expectation.

The coordinator (a Clinical Chemist or a clinical colleague) for each clinical rotation identifies specific objectives in addition to the objectives outlined in the syllabus, and arranges with clinical staff, wards or clinics to provide exposure to their particular areas. During these rotations, the resident will become familiar with clinical aspects of disease diagnosis and management along the related utilization of the laboratory.

Scheduled Clinical/External Rotations: Anatomical pathology, surgical pathology, Infectious Diseases, Microbiology laboratory, Hematology, Hemostasis, Immunology laboratory, Oncology, Emergency Medicine, Intensive Care Medicine, Pediatric Medicine, Diabetes, Renal Disease/Dialysis, Transplantation, Cancer Care, Endocrinology, Biochemical Genetics

- i. Expectations of Resident during clinical rotations
- ii. Attend clinical rounds appropriate to the topic area and selected medical grand rounds
- iii. Present a seminar related to the current topic (monthly)
- iv. Participate in medical school and technologist teaching
- v. Participate in on-call rotation for Clinical Chemistry
- vi. Present at Clinical Chemistry journal club
- vii. Present seminars on selected topics or R & D data
- viii. Attend when possible Clinical Chemistry departmental meetings, Journal Club, R&D presentations, audiovisual conferences etc
- ix. Interpretive reports (under the supervision of a Clinical Chemist)
- x. Be involved in research projects that develop an understanding for method development, method evaluations, and clinical evaluation of methods

Section 6: TRAINEE EVALUATION

The resident/trainee will meet with the program director on a monthly basis to assess his/her progress. At the completion of various rotations, the faculty/mentor responsible for the resident during that rotation will be asked to submit an evaluation form. Mentors/evaluators are encouraged to have a face to face evaluation with the trainee. The resident will be made aware of his/her evaluations as they are submitted during the regular scheduled meetings with the Program Director.

Further details of evaluation with a description of both trainee and mentor responsibilities are given in Section 7: Mentorship Model.

Section 7: MENTORSHIP MODEL

Description of the Model

The core rotation schedule is divided into blocks. Blocks are classified as either Clinical or laboratory, depending on where they are based. Both types of blocks (clinical and laboratory) are linked to each other through cases of interest identified by the resident/trainee during the rotation. The program schedule is customized on an ongoing basis to incorporate opportunities that arise, timetables of individuals involved and specific resident needs and interests. The rotation schedule can be viewed at any time on the network (SHARED) drive. (See also Section 9E)

Resident time is divided between HSC and St Boniface Hospital, in approximately equal amounts. Laboratory rotations are intended to have bench-related activities for about 50% of the time, as appropriate.

External rotations provide opportunities to understand the larger medical picture and how laboratory practices relate to effective patient care.

Resident presentations provide an important learning tool. Two types of presentations are given by the resident, a maxi presentation and a mini presentation, one or the other being given about every couple of weeks.

A mini presentation minimizes time devoted to preparation and presentation time is about 20 - 30 minutes. The mini presentation is presented on the current study topic and is given to the current mentor and director and any other staff member who is interested and available. The topics presented must include basic knowledge of the topic studied. Mini presentations provide an ongoing mechanism to reinforce essential knowledge learned during the rotation.

Maxi presentations are full presentations given at regularly scheduled staff scientific meetings where all scientific staff are present and presentation time is about one hour. While there is more opportunity to expand on a topic in maxi presentations, the resident is still expected to cover basic knowledge of the topic presented.

Resident presentations are not intended to be educational to the clinical chemist group, but rather to give the resident feedback on their comprehension of the topic and through discussion identify deficiencies. It is also an opportunity for staff to evaluate the resident, which is a vital part of helping the resident improve.

Case studies are another important learning tool and are incorporated into each rotation. It is the goal, at the end of the training program, that the resident must feel comfortable at interpreting a set of laboratory results with some kind of differential. For this reason, the resident needs to review charts on a fairly frequent basis to get to this end point. Some case reviews can serve as mini or maxi presentation topics. These are evaluated by the audience (Seminar evaluations, Section 9D).

Related minor mock exam questions are incorporated into each rotation with a major mock exam at the end of each academic year. The resident discusses answers to these questions with the mentor or any staff member either individually or at presentations.

The resident maintains a CACB syllabus check-off list of topics studied during each rotation. Resident also keeps an activity log and a record of presentations and projects.

Assigned projects are part of the training program, both clinical service (method development, reference interval determinations, etc) and academic research (clinical application of a research-based test, investigation of novel biomarkers, etc). Each rotation involves a service project as appropriate that is completed within the rotation period. The purpose of a service project is to directly experience dealing with real work issues. It is up to the mentor and resident to define the boundaries, goals and expectations of the service project so that it can be completed within the rotation period. The resident is expected to present on the outcomes of the service project. Research projects extend over longer periods and are aimed at scientific publication.

The scientific staff of Diagnostic Services Manitoba (DSM) give annual presentations on scientific topics related to their areas of responsibility. As there is no didactic teaching in this training program, staff members use these presentations to inform resident of specific scientific issues in their areas of expertise. The resident is required to attend and present on a topic of choice (related to the training) at these meetings. Attendance of various medical rounds are mandated for the resident as well.

Mentor Responsibilities:

- i. Coordinate with director to schedule rotation involving your areas of expertise and responsibility
- ii. Work with resident to create rotation specific objectives.
- iii. Interact with laboratory personnel to facilitate logistics of laboratory rotation.
- iv. Liaise with external partners to facilitate clinical or external aspects of rotation, as required.
- v. Meet with resident on a regular basis (at least weekly) to review progress, needs and opportunities of rotation.
- vi. Be available to resident for inquires and provide guidance to as to where and how the resident can find answers to these inquires.
- vii. Ensure adequate exposure of resident to required syllabus topics related to rotation.

- viii. Provide relevant mock exam question(s) and discuss answer(s) with resident. These can be incorporated into resident presentations.
- ix. Challenge resident with new insight, ideas and questions.
- x. Provide constructive feedback to resident for improving performance and knowledge base.
- xi. Evaluate the resident at end of rotation and throughout the program on a regular basis (such as after completing projects, presentations or some specific interaction). (See Appendix C)
- xii. Assign and discuss relevant service projects that should be executable during current rotation.
- xiii. Submit research project titles to director for approval and prioritization.
- xiv. Attend resident presentations (monthly).
- xv. Give an annual scientific presentation that involves information about what is happening in your areas of responsibility.

Resident Responsibilities:

- i. Work with program director to coordinate rotation schedule.
- ii. Work with mentor to create rotation specific objectives. These objectives must relate to CACB syllabus A and B topics.
- iii. Perform or observe assigned benchwork in collaboration with technologists (problem solving at the technologist level/operate like a technologist in the lab). All lab rotations involve getting involved with benchwork. This is a great opportunity to interact with and get to know technical staff. Effort should be made to associate with them during their work routine.
- iv. Challenge status quo practices and procedures with scientific and technical staff.
- v. Study rotation topics at textbook level and pursue further knowledge when textbook basics are covered.
- vi. Answer and discuss with mentor relevant mock exam questions during each rotation. Include exam questions in presentations for discussion.
- vii. Perform relevant service and research projects. Service projects are assigned by mentor and research projects are approved by program director.

- viii. Give a presentation about every two weeks. Presentations provide an excellent way to learn about specific study topics. Most presentations can be mini presentations going over recently learned material and do not need to be as comprehensive as maxi presentations.
- ix. Review patient charts as need and opportunities arise and incorporate case reports into presentations as appropriate. Find out about and attend relevant medical rounds on a regular basis (at least twice monthly).
- x. Maintain activity log and record of presentations, rounds and projects.
- xi. Maintain syllabus check off record.
- xii. Follow through with assignments and report back promptly on status.
- xiii. Perform on-call duty with staff scientist backup as assigned.
- xiv. Provide constructive feedback and expectations to program director about training program as appropriate
- xv. Schedule resident-mentor meetings during rotations.
- xvi. Meet with program director biweekly.
- xvii. Notify director and rotation mentor of prolonged absences/vacations.
- xviii. Provide names of staff who participated in resident training during rotation to program director.
- xix. Participate in appropriate PGME training modules.
- xx. Give status report to advisory committee on request.
- xxi. Attend general medical and rotation specific grand rounds.

Director Responsibilities:

- i. Work with advisory committee to design rotation blocks.
- ii. Coordinate rotation schedule with all participants (internal and external).
- iii. Respond to inquires about training program.
- iv. Meet with resident biweekly to discuss
 - a. exchange of expectations of program and resident,
 - b. evaluation feedback,

- c. rotation schedule, objectives and issues,
 - d. activity log,
 - e. syllabus check-off,
 - f. mock exam questions,
 - g. presentations,
 - h. research and service projects and any non-standing item as they arise.
- v. Review and compile resident evaluations and give timely feedback to resident at director-resident meeting.
 - vi. Arrange and coordinate CACB program accreditation process.
 - vii. Keep advisory committee informed of resident and program status.
 - viii. Liaise with PGME office as required.
 - ix. Provide general guidance, encouragement and support to resident where required.

Section 8: Clinical Chemistry Resident Start-up

Postgraduate Medical Education (PGME) registration

A welcome package should be sent by e-mail from PGME in the beginning of June. This should include registration forms that need to be submitted to the PGME office (260 Brodie Centre) by June 15th (with a void cheque for payroll). In addition the welcome package should give the date of the mandatory PGME resident orientation.

If this is not received contact the PGME office Tel 204-789-3290 and speak to the administrator of Postgraduate Medical Education, Ms. Kristy McGregor (email: wendi.charette@med.umanitoba.ca, Tel: (204) 272-3120).

One week before start:

- i. Attend the “New PGME Resident Orientation” which is usually held the week before July 1st, located in Frederic Gaspard Theatre Basic Medical Sciences building.
- ii. At the orientation you will:
 - a. Will receive the form for a HSC ID access card
 - b. Will receive a requisition for 4 HSC lab coats to be ordered from the laundry department
 - c. Will receive the PAIRM contract
- iii. Sign forms at the clinical chemistry main office for e-health (computer access)
- iv. Check with WRHA payroll to confirm you have been set up for pay (Tel 787-1256), located in: 222-60 Pearl St. Lennox Bell Lodge.

Once started:

At Health Sciences Centre (HSC)

- i. Parking is available in an HSC parkade (ex. Tecumseh) with a reciprocal spot in the St. B parkade. This is available as soon as the papers are signed at the parking office, located at: 791 Notre Dame Ave. Tel 787-2715.
- ii. Set up voicemail access on office phone

- iii. Sign up for HSC orientation which includes PHIA certification (required for access to patient information).
- iv. WHRA Benefits forms will be sent in the mail
- v. Fill out these forms and return to the Benefits office, located in: Lennox Bell Lodge 60 Pearl St. Tel 787-2519
- vi. Make an appointment with Occupational Health (OESH) for immunization consultation, located in: NA618 Isabel M. Stewart Bldg. Tel 787-3312
- vii. Library card can be obtained from the University of Manitoba Neil John Maclean Health Sciences Libraries, located at: 770 Bannatyne Avenue Tel 204-789-3342. This will allow for access to all hospital libraries (St. B as well) and remote computer access.
- viii. Sign up for WHIMIS training

At St. Boniface Hospital (SBGH)

- i. Set up voicemail access on office phone
- ii. Sign up for EPR training (required for full computer access).
- iii. Sign forms for access card
- iv. Need lab coats specific for SBGH (will get 2 regular lab coats for the offices and two lab coats with green tags on the pockets to wear in the lab)

Society Memberships

Apply for student memberships with:

- i. Canadian Society of Clinical Chemists (CSCC)
- ii. American Society for Clinical Chemistry (AACC)

Section 9A: PREVIOUS TRAINEE PROFILE

Year	Name and current position
1977 –1979	Dr. J. Dalton, President, Dalton Healthcare Consulting
1980-1981	Dr. R. Yatscoff, Vice President, TEC Edmonton, Alberta
1982-1984	Dr. D. Parry, Clinical Biochemist, Diagnostic Services Manitoba
1984-1987	Dr. C. Collier, Clinical Biochemist, Kingston General Hospital
1987-1989	Dr. T. Dembinski, Clinical Biochemist, Diagnostic Services Manitoba
1990-1993	Dr. D. Blandford, Scientific Director, Public Health Agency of Canada
1993-1996 York	Dr. Jian Dai, Clinical Biochemist, Siemens Healthcare Diagnostics, New
1997-1998 *	position seconded trainee in molecular diagnostics_
1998-2001	Dr Laurel Thorlacijs, Medical Director, Diagnostic Services Manitoba
2001-2003	Dr. A Khajuria, Clinical Biochemist, Marshfield Laboratories, Wisconsin
2003-2006	Dr. A. Lou, Clinical Biochemist, QE Hospital, Charlottetown
2007-2010	Dr. A. Sokoro, Clinical Biochemist, Diagnostic Services Manitoba

2010-2013 Dr Teralee Burton, Current Resident

Section 9B: SYLLABUS

The current syllabus is found on the Canadian Academy of Clinical Biochemistry (CACB) website at <http://www.cccb.ca/images/File/CACBSYLLABUS2005.pdf>

Section 9C: ROTATION EVALUATION FORM

University of Manitoba
Clinical Biochemistry Postdoctoral Training Program
Rotation Evaluation Form

Evaluation Date:	
Rotation Name:	
Rotation Interval:	
Mentor(s)	
Evaluator:	

Criteria	Rating		
	Needs Improvement*	Satisfactory	Excellent**
Mentor / Resident Interactions: - frequency, availability, initiative, attitude			
Rotation Orientation: guidance, support, encouragement, clarity			
Feedback: - frequency, constructive, specific, verbal, evaluation forms, challenge			
Attitude: - patience, courtesy, respect, interest			
Effectiveness: - teaching, resourcefulness, commitment, discussion, presentation			
Organization: - balance of time allocation to lab, clinical and office, realistic expectations			
Projects: - opportunities, relevance, service, research, realistic time requirements			
Objectives: - well defined, realistic, achieved, challenging, customized			
General: - experience, relevance, importance			

Please provide comments for:	
*Needs Improvement	
**Excellent	

Section 9D: SEMINAR EVALUATION

University of Manitoba
Clinical Biochemistry Postdoctoral Training Program
Presentation Evaluation Form

Date of Presentation:	
Presenter:	
Presentation Title:	
Evaluator:	

Criteria	Rating		
	Needs Improvement*	Satisfactory	Excellent**
Relevance: -rotation topic, case report, project, medical literature			
Verbal communication: -speaks clearly, completes statements, takes control, makes interesting			
Visual communication: -body language, distracting habits,			
Effectiveness: -audience attention, lost thoughts, convincing			
Style: -control, varies voice, humor, ensures understanding			
Organization: -time allotment, logical order, story progression			
Question handling: -listens, deflects, specificity, admission, follow-up			
Audio visual use: -complex, simplistic, excessive, distracting, enhancing			
Audience involvement: -participation, opportunity, interactive, leadership			
Knowledge level: -appropriate, lacking, in-depth			

Please provide comments for:	
*Needs Improvement	
**Excellent	

Section 9E: ROTATION SCHEDULE

Block	Rotation Area/Topic	Time Period	Dates	Site	Clinical Rotation	Laboratory Rotation	Coordinator
L1	Orientation/Specimen Processing	9 weeks	dd-mmm-yyyy – dd-mmm-yyyy	HSC/SBGH		Familiarization with HSC and SBGH labs, activity log, safety, LIM, LIS, EPR. Comparison of sample handling processes at SBGH and HSC, phlebotomy, sample reception and processing, referred-out specimen handling, registration	AS
L2	Automation	4 weeks		HSC/SBGH	Cases and rounds, intra-operative PTH	Comparison of automated processes at SBGH and HSC, instrumentation, workflow issues, lean-sigma, quality practices, critical results phoning, auto-verification, automated TDM and toxicology, SOP/accreditation, specimen archiving	AS/DP/BD
L3	Specialized Procedures - Signal detection in Clin Chem	5 weeks		HSC MS5/MS6 SBGH	Cases and rounds	Modes of Analyte Detection	AS/DP/BD
L4	Toxicology	4 weeks		SBGH	Poison Centre, treatments Reading/Research projects/Abstract writing for 2014 Conference	Medical / Forensic, Instrumentation, poisons, carbon monoxide testing	BM/CO
L5	Projects	2 weeks		HSC/SBGH			AS
	Spare/Vacation	3 Weeks					
L6	Metabolic - Laboratory	4 weeks		HSC/CPL	Cases and rounds, clinical liason, clinical project	PKU, aminoacidurias, glycogen storage diseases, cystic fibrosis, current instrumentation and test repertoire, Newborn screening	LS/BT
L7	Molecular	4 weeks		HSC	Cases and rounds, clinical liason	Molecular techniques, genetic diseases	BS
C1	Hematology/Coagulation	4 weeks		HSC/SBGH	Bone consults, blood banking	Hematology laboratory setup, instrumentation and methods. Hemoglobinopathies, Hemoglobin indices, Peripheral smear, Bone marrow biopsies, molecular pathology, Blood Banking	AA
	Spare/Vacation	1 week					
C2	Immunology	4 weeks		HSC/SBGH	Cases and rounds	Monoclonal protein investigation, specific protein analysis, autoimmune antibody testing, flow cytometry	CM

L8	Projects	8 weeks	HSC/SBGH		Small projects for presentation at 2015 conferences	
	Mock Exam	1 week	HSC/SBGH		Mock Exam CACB Style	AS
C3	Pathology	8 Weeks	HSC/SBGH	Pathology Rounds, Forensic cases	Post mortem, grossing, surgical, Neuropathology, gynecologic pathology	MD
C4	Infectious Disease/Microbiology	4 weeks	HSC/SBGH	Clinical Microbiology Rounds/Case presentations	Microbiology laboratory, intrumentation, tests and methods, pathogens, STD, sample handling, plating	JK
	Spare/Vacation	1 weeks				
C5	PICU/Pharm	4 weeks	SBGH	Lab/Pharm aspects of inpatient medical care		RA
C6	Endocrinology	7 weeks	HSC/SBGH	Endo Clinics/Case Rounds	Theory, instrumentation, methods, clinics, diagnosis, Stimulation	BD/AS
	Spare/Vacation	2 weeks				
C7	Diabetes	4 weeks	SBGH/HSC	Outpatient clinic / ward rounds	POC, Ketoacidosis, Monitoring, Diagnosis, Microalbumin	AS/DP
C8	PMed/Pharm	4 weeks	SBGH PICU/MICU	Lab/Resp/Pharm aspects of acute patient care	Respiratory lab	TD
C9	Drugs	4 weeks	SBGH/HSC	Pharmacy consults	Pharmacology, TDM, Methods and instrumentation, Interferences, Pre/Post, pharmacogenetics	CO/BM
	Spare/Vacation	1 weeks				
C10	Cancer	4 weeks	HSC/SBGH	Ped/adult clinics, rounds and cases	Genetics, Theory, Clinical, Laboratory, Diagnosis/Screening, FOB	TD
C11	Medicine	8 Weeks	HSC	Lipid clinic, Nephrology Clinic, cases and rounds, dialysis unit	Liver, Kidney, Heart, Lipids, GI (ICU,CCU,Dial, Lipid), Transplant Immunology	DP/LT
	Mock Exam	1 week	HSC/SBGH		Mock Exam CACB Style	AS
L10	Management structures, lab organization	4 weeks	DSM/SBGH/HSC	DSM management meetings	Assigned professional responsibilities, on-call, management meetings, assigned management projects, budgets/budgeting, matrix management, provincial organization, union/labor	AS/LT/JD

L9	Reference Lab Clinical Oversight	4 weeks	WL		Clinical oversight of Westman Lab in the capacity of Clinical Biochemist	AS/LT
C12	Parathyroid surgery	2 weeks	SBGH			TD
C13	Thyroid Clinic/Nuclear Medicine	2 weeks	SBGH			AS
	Spare/Vacation	1 weeks				
C14	Cardiac Surgery	1 week		Cardiac Surgery	Cardiac bypass & transplant biochemistry	LT
C15	Maternal-Fetal Medicine	1 week		OB/GYN & NICU Clinic	Pregnancy testing, Biochemical testing in Pregnancy	LT
C16	Gastroenterology	4 weeks	HSC/SBGH	GI Clinic (Adult & Pediatric)	Diseases of the GI & Liver: Diagnosis, Management & Nutrition	AS
C17	Emergency Medicine	4 weeks	HSC/SBGH	ER (Adult)	Laboratory aspects of Emergency Medicine: Stat testing, etc	AS
	Spare/Vacation	3 weeks				
L11	All Systems and Processes	26 weeks (6 months)	SBGH/HSC	Mock exam questions, gap analysis	Lab Accrediation, method/Instrument evaluation, quality systems, reference ranges, role of Chemist, self study, projects, lab design, review areas most needed	AS/DP/BD/LT/JD

NOTES

1. Laboratory time will be divided between HSC and SBGH in approximately equal amounts
2. The resident will present a topic relevant to the current rotation on a monthly basis

Key

AS	Dr. Abdi Sokoro
BD	Mr. Bill Dent
BM	Dr. Bob Meatherall
BS	Dr. Elizabeth Spriggs
CO	Dr. Curtis Oleschuk
DP	Dr. David Parry
LT	Dr. Laurel Thorlacius
LS	Dr. Lorne Seargeant
TD	Dr. Tom Dembinski
RA	Dr. Rob Ariano
AA	Dr. Arshad Ahsanuddin
MD	Dr. Marc Dupre
JD	Dr. Jim Dalton
JK	Dr. James Karlowsky
CM	Dr. Carmen Morales

Section 9F: CLINICAL BIOCHEMISTRY & GENETICS FACULTY CONTACT LIST

Name	Title	Office Location	Telephone (Office)	Fax
Dr. Laurel Thorlacius	Medical Director	MS543B (HSC)	204-787-8858	204-787-3846
Mr. Hayden Malvern	Technical Director	MS543G (HSC)	204-787-4159	204-787-3846
Dr. Lorne Seargeant	Clinical Biochemist	MS543A (HSC)	204-787-4531	204-787-3846
Dr. Curtis Oleschuk	Clinical Biochemist	MS543F (HSC)	204-787-2845	204-787-3846
Mr. Bill Dent	Clinical Biochemist	MS543C (HSC)	204-787-7004	204-787-3846
Dr. Abdi Sokoro	Clinical Biochemist (Program Director)	MS435N (HSC)	204-787-1576	204-787-3846
Dr. David Parry	Clinical Biochemist	L3020 (SBGH)	2040-237-2492	204-231-2656
Dr. Robert Meatherall	Clinical Biochemist	L3022 (SBGH)	204-237-2259	204-231-2656
Dr. Tom Dembinski	Clinical Biochemist	L3008 (SBGH)	204-237-2474	204-231-2656

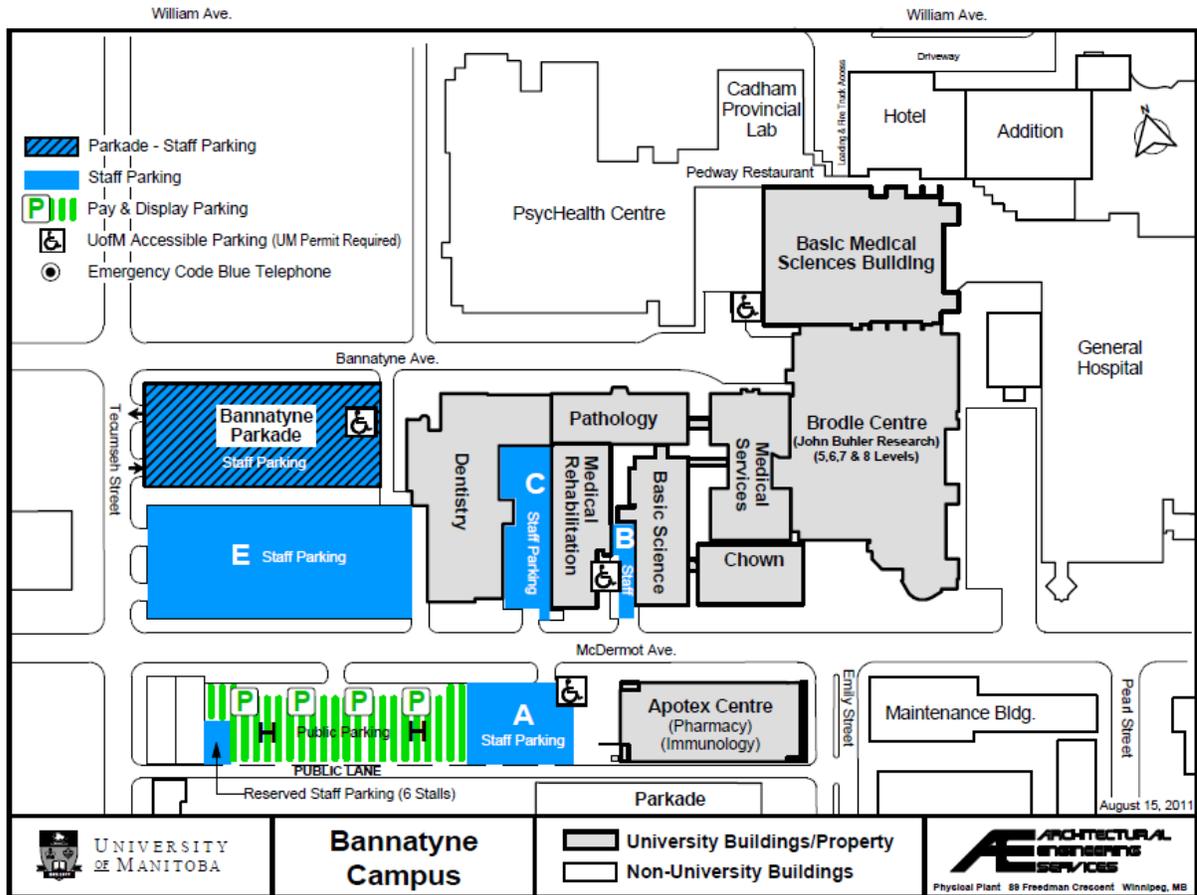
Section 9G: RESIDENT ACTIVITY LOG

Year	Month	Week	Activity	Activity Type	Status
xxxx	July	3rd - 6th	General Registration (HSC)	General	completed

Section 9H: MAPS

Health Sciences Centre

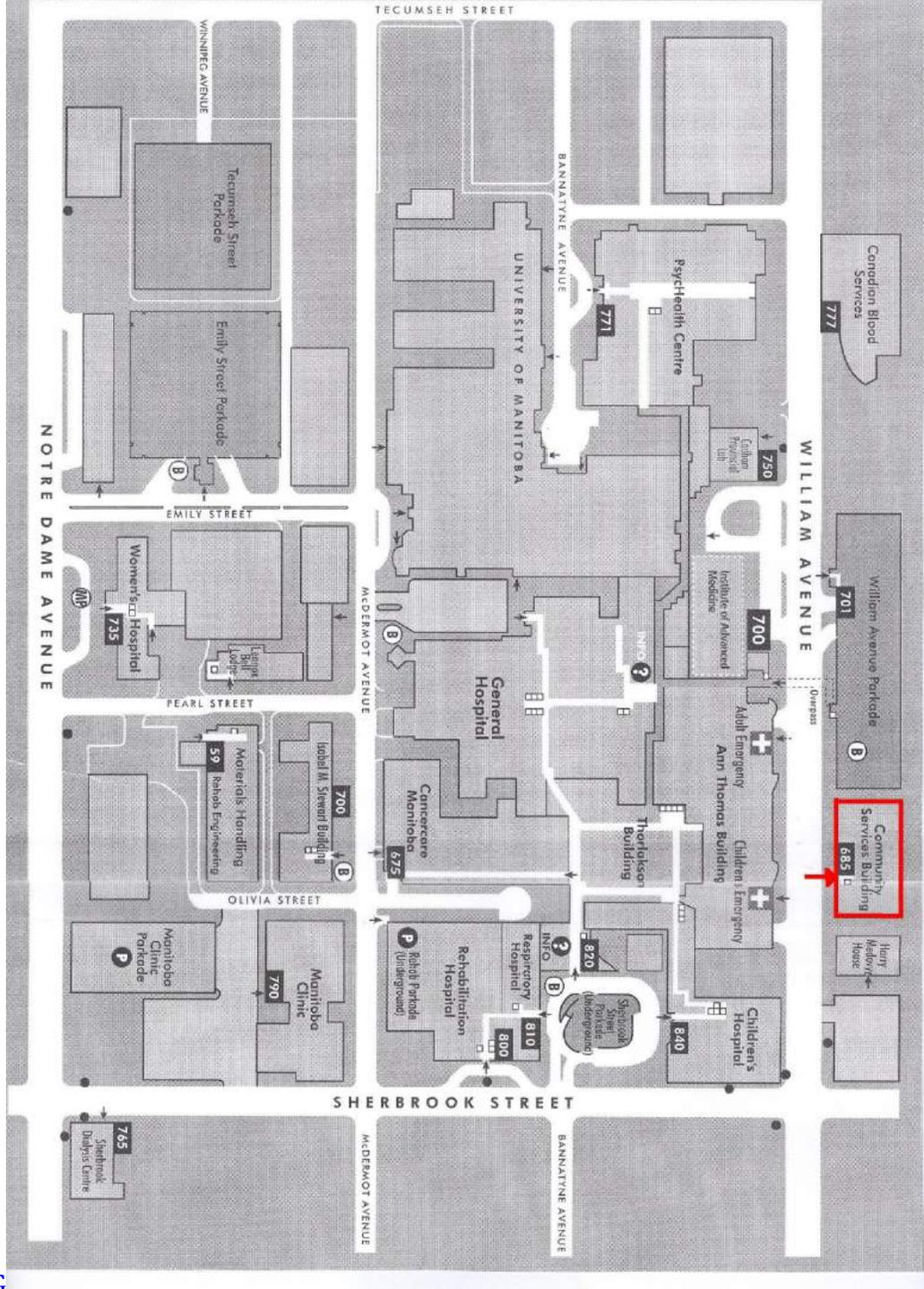
University of Manitoba Bannatyne Campus Map



http://umanitoba.ca/campus/parking/media/Bann_Map.pdf

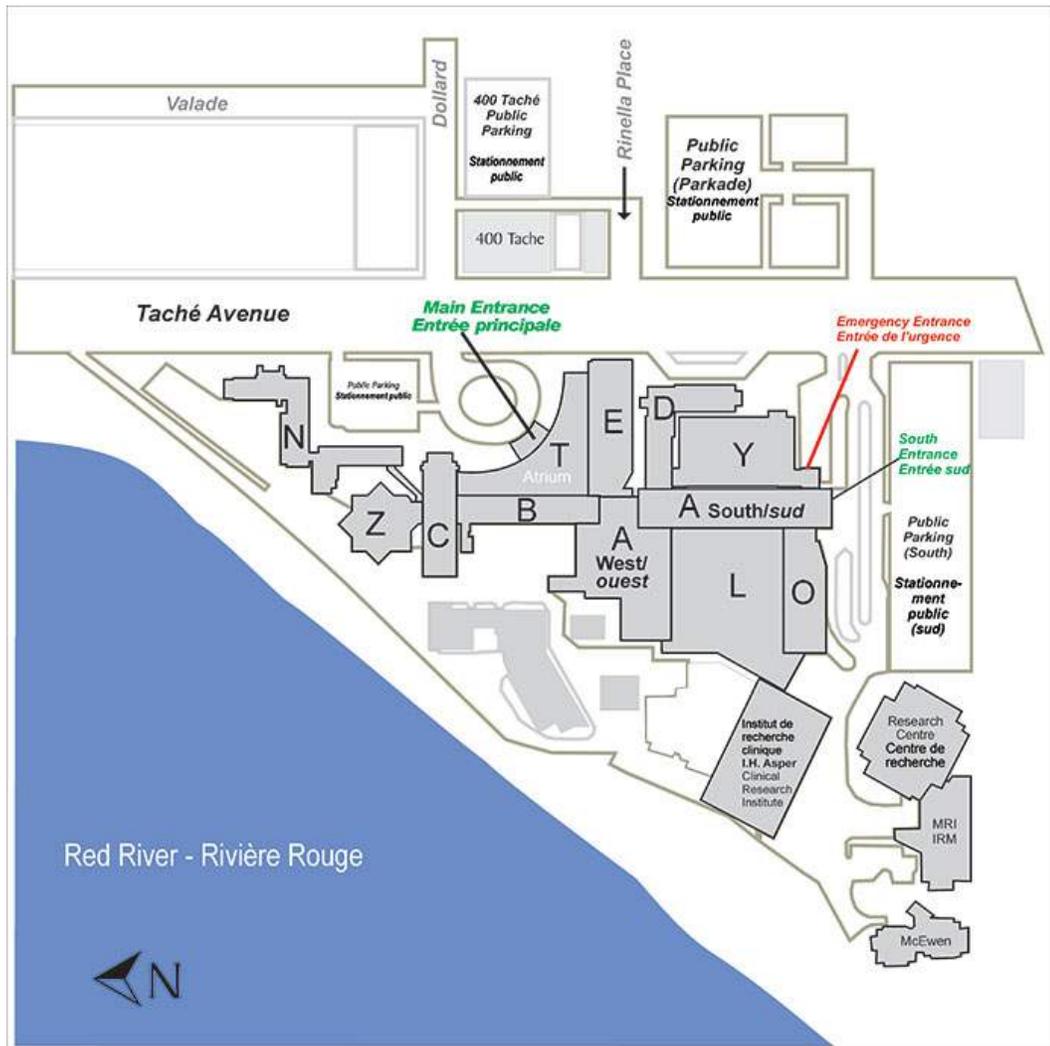
HSC Campus Map

http://umanitoba.ca/faculties/medicine/units/pediatrics/images/HSC_comserv.JPG



http://umanitoba.ca/faculties/medicine/units/pediatrics/images/HSC_comserv.JPG

Saint Boniface General Hospital



<http://www.sbgh.mb.ca/findingUs/campusMap2D.html>

- Admitting - D
- Ambulatory Care Facilities (ACF) - Y
- Asper Clinical Research Institute
- Bergen Cardiac Care Centre - Y
- Buhler Gallery - T
- Cafe Oasis - T
- CancerCare Manitoba - O
- Cashier Office - A
- Chapel - C
- Education Building - N
- Emergency - Y
- Ethics Service, Health Care - A
- Everett Atrium - T
- Foundation - C
- Gift Shop - T
- Inquiry Desk - T
- Internet Kiosks - T
- Laboratories - L
- Library for staff and patients - A
- Lost and Found - B
- Main Entrance - T
- McEwen Building - M
- Medicine/Surgery Outpatient Clinic - Y
- Medicine/Surgery ACF - Y
- Morrison Food Services - T
- MRI
- Parking Office - A
- Patient Registration - D
- Patient Relations - B
- Pediatrics Ambulatory Care Facility - Y
- Pediatric Outpatient Clinic - Y
- Psychiatry - M
- Restaurants - T
- Security - B
- Shoppers Drug Mart - T
- Restaurants - T
- St. Boniface Health Centre - D
- Tims - T
- Volunteer Services - A
- Women's Health ACF - Y
- Women's Health OutpatientClinic - Y

