

CANCELLED



Programs & Services Committee Agenda

City of Newton **In City Council**

Wednesday, March 7, 2018

7:00PM

Room 211

Items Scheduled for Discussion:

Referred to Programs & Services, Zoning & Planning and Finance Committees

- #59-18** **Ordinance amendment for licensing and criteria for lodging houses**
COUNCILORS CROSSLEY, ALBRIGHT, NORTON, DANBERG, LEARY, KALIS, AND BAKER
requesting amendments to Chapters 17 and 20 of the City of Newton Ordinances to establish criteria, licensing requirements, and fees for lodging house owners and resident supervising agents.
- #162-18** **Re-appointment of Gary DuMoulin to the Biosafety Committee**
PRESIDENT LAREDO re-appointing GARY DuMOULIN, 24 Myerson Lane, Newton Centre as a member of the BIOSAFETY COMMITTEE for a term to expire April 1, 2020.

Respectfully Submitted,

John B. Rice, Chair

The location of this meeting is accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the City of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711.

Chapter 17 – Licensing and Permits Generally

Art. II. Fees for licenses and permits, 17-2—17-21

Sec. 17-3. Fees for certain licenses and permits.

Notwithstanding any contrary provision in any other section of these Revised Ordinances, there shall be paid a fee on an annual basis or unless otherwise noted to the city clerk for each of the following applications, permits, licenses or charges, the sum set forth as follows:

- ...
- (8) Lodging house licenses \$50.00
- (#) Dormitory license..... \$50.00

Sec. 17-10. Fees to be paid to the fire department.

Notwithstanding any contrary provision in any other section of these Revised Ordinances, there shall be a fee paid on an annual basis or unless otherwise noted to the fire chief for each of the following applications, permits, licenses or charges, the sum set forth as follows:

- ...
- (b) Inspection fees:

Sec 17-16. Fees for interdepartmental inspections.

Notwithstanding any contrary provision in any other section of these Revised Ordinances, there shall be a fee paid on an annual basis or unless otherwise noted to the Commissioner of Inspectional Services for each of the following interdepartmental inspections:

- (1) Lodging House Inspection Fee.....\$300.00

Article VI. Lodging Houses, §§ 17-138 – 17-147

Div. 1. Generally, §§17-138 – 17-142

Div. 2. Licenses, §§17-143 - 17-147

DIVISION 1. GENERALLY

Sec.17-138. Definitions.

- a) Lodger: A person who occupies space for living and sleeping purposes without separate cooking facilities, paying rent, which may include an allowance for meals; and who is not a member of the housekeeping unit.
- b) Lodging House: Any dwelling designed, occupied, or intended for occupancy by 4 or more lodgers. Includes rooming house, boarding house. It shall not include convalescent, nursing or

rest homes; group homes; dormitories of charitable, educational, or philanthropic institutions; fraternity houses; or hotels.

State law reference – M.G.L. c. 140, §22, minus fraternity houses and dormitories of educational institutions

- c) Rooming Unit: The room or group of rooms rented to an individual or household for use as living and sleeping quarters.
- d) Enhanced Single Room Occupancy Units (E-SROs): Any Rooming Unit in a Lodging House that provides cooking facilities within the rooming unit.
State law reference - M.G.L. c.140, §22A – cooking facilities

Sec. 17-139. Requirements for all Lodging Houses.

- a) Common facilities. At minimum the following common facilities are required:
 - i. Kitchen for use by all residents that includes food storage and cooking facilities in compliance with the State Sanitary Code.
 - ii. Bathrooms shall be provided in compliance of all applicable codes. Bathrooms shall be provided on the same floor as the associated rooming unit.
- b) Facilities in Rooming Units.
 - i. Rooming Units, unless considered E-SROs, shall not include cooking facilities (convection microwaves, stoves, ranges, toasters, etc.) but may include food storage and non-cooking appliances (e.g. mini-fridge, coffee maker, blender, non-convection microwave) in compliance with the licensee’s approved electrical policy (see Sec. 17-144).
 - ii. Rooming units shall have individual keyed locks. Resident supervising agent shall keep the master key (Resident Supervising Agent defined in Sec. 17-144).
 - iii. Rooming Units may include private bathrooms.
- c) Number of Residents. The maximum number of residents in any rooming unit shall be determined by the State Sanitary Code. The maximum number of adult residents at any Lodging House shall be in accordance with requirements in the Zoning Ordinance, Chapter 30 of the Revised Ordinances of the City.

Sec. 17-140. Requirements for Enhanced Single Room Occupancy Units (E-SROs).

Licensed lodging houses may provide E-SROs under the following requirements and in accordance with the City’s Zoning Ordinance, Chapter 30 of the Revised Ordinances of the city.

- a) Life Safety. Inclusion of one or more E-SRO unit in a lodging house shall trigger compliance with minimum life safety requirements applicable to new construction for R-1 occupancies as required in the State Building Code. All E-SRO units shall have two independent means of egress from the unit.
- b) Cooking facilities. Cooking facilities in E-SRO units shall consist of a mini-kitchen providing a sink with hot and cold water, food storage area, refrigerator, and electric cook top with a maximum of 2 burners. Ovens and ranges shall not be permitted. Microwaves with or without convection and other accessory appliances shall be permitted in compliance with the licensee’s approved electrical use policy.
- c) Dimensional requirements. Each E-SRO shall have a minimum of 175 square feet.

- d) Max. number of E-SROs. In accordance with MGL c. 140 §22A , only a lodging house letting to more than 5 but less than 20 persons may furnish individual cooking facilities.
- e) Inclusionary Units. E-SRO units that include full living, cooking, and washing facilities, shall be subject to the Inclusionary Housing Section of the Zoning Ordinance (Chapter 30, Section 5.11).

Sec. 17-141. Compliance with City Ordinances and State and Local Codes.

- a) All lodging houses shall comply with the City’s Zoning Ordinance, Chapter 30 of the Revised Ordinances of the City.
- b) All lodging houses shall comply with all applicable ordinances and local, state, and federal codes applying generally to residential properties in the city.

Sec. 17-142. Reserved.

DIVISION 2: LICENSES

Sec. 17-143. License Required.

- a) No person shall operate or cause to be operated a Lodging House unless licensed by the Licensing Board of the City of Newton.
- b) Transfer/Sales of Licenses. No licensee may transfer to another person or entity a license issued pursuant to these regulations except upon application to and approval of the transfer by the Licensing Board. Any such transfer shall be subject to the terms and conditions of the original license, unless otherwise ordered by the Board.

All Licenses are specific to an individual property and shall not be transferred between properties without approval of the Licensing Board.

- c) Display of Licenses. All licenses issued by the City pursuant to these regulations shall be displayed on the premises in a conspicuous place where they can be easily read.
- d) Taxes and Charges. All taxes and charges owed to the City by the Licensee must be paid on a current basis to receive or renew a license. The City may deny a license or license renewal if such charges or property taxes are not current.

17-144. Requirements for Licensees and Agents.

- a) Licensee, defined. That person(s) or entity listed on the lodging house license and the owners of the land and building where the lodging house is operated.
- b) Resident Supervising Agent, defined. That person designated by the licensee to carry out day to day responsibilities.
- c) Responsibility of Licensee. The licensee shall be responsible for the proper supervision, operation, and maintenance of the lodging house in accordance with the requirements of these ordinances and all other pertinent laws, regulations, and codes. The appointment of

an agent shall in no way relieve the licensee from responsibility for full compliance with the law.

- d) On-site supervision of the premises. Licensed premises must have supervision from a resident who shall be available on a 24-hour basis via phone, or similar mobile communication device, for residents and city staff. In the event that the licensee does not reside on the premises, the licensee shall designate one or more resident supervising agents who do reside at the property. The Licensing Board shall approve such agent(s).

Contact information for the resident supervisor, including cell phone or similar mobile communication device, as applicable, shall be posted in a conspicuous place inside the lodging house and provided to the Police Department, Health and Human Services Department, Fire Department, and Inspectional Services Department.

Resident supervisor, whether licensee or resident supervising agent, must respond to calls from City officials within a reasonable time: within one hour for emergencies and within 24 hours with respect to all other issues.

In the event that no resident supervisor will be at the property for more than 48 hours, e.g. for a vacation, the licensee shall be responsible for ensuring continuity of management by informing residents and the City of Newton Health and Human Services Department and Police Department of the short term change, and by assuming the role of central point of contact should any issues arise.

- e) Mandatory Certification for Licensees and Agents.
- i. All Licensees and their resident supervising agent(s) shall complete a two-step certification program to acquaint them with important aspects of their roles with regard to ensuring resident safety and compliance with City ordinances. Certification program materials will be developed by the Newton Inspectional Services Department along with representatives from the Health and Human Services Department, and Fire Department.
 - ii. All applicants for new licenses shall review guidance materials and complete a written certification test. Their completed test shall be submitted along with their application for review by the certifying departments and the Licensing Board.
 - iii. All applicants shall be required to complete an in-person certificate training program within the first year of their licensure. Such in person training shall be offered at least once per year and will be an instructional program that will educate the licensee and the agent(s) with regard to the requirements of these regulations and other laws or related topics that the City may deem necessary for the safe and proper operation of lodging houses.
 - iv. The Licensing Board may at its discretion allow an extension to allow a licensee or agent to complete the in-person certification training in the 2nd year of licensure. Failure to complete the in-person training may result in a fine of the licensee not to exceed \$500.00 or the suspension or revocation of the lodging house license, as the Licensing Board, after notice and hearing, may determine.
- f) Timeliness Requirements when there is a change of Licensee or Resident Supervising Agent. If at any time there is a change in the Licensee or Agent, the newly designated person(s) shall be required to notify the Licensing Board at least 48 hours prior to assuming responsibilities and receive their license within 60 days.

17-145. Responsibilities of Licensees and Resident Supervising Agents regarding Residents.

- a) Agreements with Residents. Licensees shall have written agreements with lodgers and supply the Licensing Board a copy of agreements with lodgers and any related documents. Licensees may not enter into agreements with residents that are inconsistent with the terms of these regulations, including, but not limited to, the regulations requiring licenses to inspect occupied and unoccupied rooming units and requiring licensees to institute certain House Rules.
- b) Minors. No room shall be let to any unemancipated person who is younger than eighteen (18) years of age.
- c) Occupancy. No licensee shall vary the occupancy of the licensed premises as certified by the Inspectional Services Department.
- d) Resident and Guest Registries. The licensee of every lodging house shall keep or cause to be kept, in permanent form, a registry of residents. Such register shall contain the true name or name in ordinary use and the last residence of every person engaging or occupying a private room together with a true and accurate record of the room assigned to such person and of the day and hour of move-in and move-out. The entry of names of the residents shall be made by the residents themselves. Copies of these records shall always be maintained and be available for inspection by any City official.

Guests shall be registered in a separate guest registry with day and time of entry and exit listed.

- e) House Rules. Licensees and their agent(s) shall institute house rules as necessary to prevent the lodging house from being a cause of complaint to the Police Department or a cause of nuisance or annoyance to the neighbors or neighborhood.
 - i. House rules should make residents aware of the City’s ordinances and the licensee’s policies, which shall be in writing and be reviewed by the Inspectional Services and Planning Departments. At a minimum, house rules shall adequately address the following:
 1. Noise control, including use of audio equipment that may disturb the peace;
 2. Adherence to laws regarding disorderly behavior;
 3. Proper garbage disposal and sanitary storage of food;
 4. Cleanliness of rooming units and common areas;
 5. Unobstructed egress paths.
 6. Compliance with Electrical Use Policy.
 7. Prohibition of use of fire escapes for general access to rooming units.
 8. Prohibition of tampering or removal of life safety devices.
 9. Guest policy.
 10. Pet policy.
 11. Any other provisions as may be required by the Licensing Board or City Officials.
 12. Consequences for repeat violations of the House Rules or the requirements of these regulations, up to and including eviction.
 - ii. Licensees or agents shall ensure all residents are aware of the rules by distributing them at move-in, posting them in a visible place in the common area, and distributing updated copies when changes are made.

- iii. Any change to the house rules shall be submitted to the Inspectional Services and Planning Departments for review.
- f) Electrical Use Policy. Licensees and their agent(s) shall institute an electrical use policy to prevent the lodging house from being a fire risk to the residents and neighborhood.
 - i. Licensees and their agent(s) shall institute an electrical use policy to be approved by the Fire Prevention Bureau and Inspectional Services Departments. At a minimum, electrical use policies shall adequately address the following:
 - 1. Prohibition of use of portable heaters.
 - 2. Prohibition of use of candles or other items that require burning (incense, odor oils, etc.).
 - 3. Prohibition of use of cooking appliances other than non-convection microwaves in rooming units, including prohibition of: toasters, toaster ovens, electric hot plates, gas plates, ovens, stoves (including stoves using sterno or other fuel), or grills. The licensee may, at his/her discretion, prohibit the use of non-convection microwaves in rooming units.
 - ii. Licensees or agents shall ensure all residents are aware of the electric use policy by distributing it at move-in, posting it in a visible place in the common area, and distributing updated copies when changes are made.
 - iii. Any change to the electrical use policy shall be submitted to the Inspectional Services Department and Fire Prevention Bureau for review.

17-146. Responsibilities of Licensees and Agents regarding Property Maintenance & Management.

- a) Egress from and Access to Building. Licensees and Agents shall be responsible for ensuring that adequate egress is provided. A minimum of two means of egress shall be provided from each occupied story of a lodging house. No private room shall be used as access to a required fire escape except that additional egress shall be provided to E-SROs in accordance with Sec. 17-140.

Licensees and Agents shall promptly remove any obstacle that may interfere with the means of egress or escape from any building or other premises, or access to any part of the building or premises by the fire department. Doors and windows designated as exits shall be kept clear at all times.

- b) Egress Route Information. Licensees and Agents shall be responsible for ensuring that egress routes are clearly marked and identified.

Licensees or Agents shall establish and post an Evacuation Plan in compliance with the **National Fire Protection Association** Protocol for residential occupancies on all levels of the building and near all exits. The facility is required to conduct at least four Evacuation Drills a year held quarterly and submit documentation to Fire Prevention showing that they have been done.

Licensees or Agents shall ensure that exit signs and emergency lighting along the egress routes are in good working order at all times.

- c) Maintenance. The building and all parts thereof shall be kept in good general repair and properly maintained.

17-147. License Application and Renewal Requirements.

- e) Application Requirements. The Licensing Board shall establish application forms and procedures for application filing that at minimum adequately address the following:
 - i. Incomplete applications shall not be accepted.
 - ii. Submission of an application containing false information shall be cause for refusing the application or for suspending, canceling, or revoking a license already granted.
 - iii. No person or entity shall obtain or renew a license unless the applicant can demonstrate proof of a legal right to the licensed premises for the term of the license.
 - iv. At minimum the application for a Licensee must contain the following documents:
 - i. Personal information for the licensee and any resident supervising agent(s) at the time of application
 - ii. Contact information for resident supervisor whether licensee or agent
 - iii. Resume
 - iv. Professional References
 - v. Copy of House Rules
 - vi. Copy of Electrical Use Policy
 - vii. Copy of Evacuation Plan
 - viii. Application filing fee
 - v. At a minimum, the application for a Resident Supervising Agent shall include:
 - i. Personal information
 - ii. Contact information
 - iii. Resume
 - iv. Professional References
 - v. Application filing fee
- f) Fees. Inspection and License fees shall be in an amount established by the City Council. Licensing Board Filing fees shall be in an amount established by the Licensing Board.
 - vi. Inspection fees are non-returnable once an application has been accepted by the Inspectional Services Department.
 - vii. Annual license fees shall be paid upon application for License or License Renewal.
- g) City Inspections and Reports. All licensed premises shall be inspected by the City of Newton prior to initial license, and annually thereafter. Annual Inspections shall be conducted by the Inspectional Services Department, Health and Human Services Department, and Fire Department coordinated as a one-time inspection. The above departments may conduct additional inspections as may be required to ensure safety **and compliance with local ordinances, including zoning**. All inspecting departments shall keep records of annual inspections and visits to the property throughout each year.

The following City departments shall provide a report to the Licensing Board prior to license renewal, Inspectional Services, Fire, **Police**, Health and Human Services, Treasurer/collector, and Planning Department as appropriate.
- h) Licensing Board Process Requirements. The Licensing Board shall establish procedures for assessing Lodging House License applications and conduct the meetings in accordance with established rules. The Licensing Board shall approve/deny applications for both licensees and their resident supervising agent(s).

The Licensing Board shall hold a public hearing on each application for a new licensee or agent. Public hearing notice requirements shall mirror those for special permits.

The Board shall not reconsider any matter already determined by the City Council or any other Department of the City.

Renewal schedule to be set by the Licensing Board.

- i) Denial of Licenses or Renewal Applications. The Licensing Board may deny an application for a license or renewal or may suspend a license where there is just cause for doing so, including non-compliance with these regulations. A public hearing must be held prior to denial of an application. Public hearing notice requirements shall mirror those for special permits.

Sec. 17-148. Violations.

- a) Violations of building, health, or fire code, may result in license review by the Licensing Board. Violation notices for licensed lodging houses from Inspectional Services, Health and Human Services, or the Fire Department shall be promptly forwarded to the Licensing Board for consideration.

- b) In addition to the penalties for code and ordinance violations established by the Commonwealth of Massachusetts and City of Newton, the Licensing Board shall have the authority to issue the following penalties for violations of these regulations after notice of hearing and opportunity to be heard.
 - i. More than three (3) code violations not addressed within 30 days of inspection unless a correction plan is approved by the Inspectional Services Department or Fire Prevention Bureau as appropriate...\$300 Fine
 - ii. More vehicles stored on the premises than allowed on the premises by zoning on (3) or more occasions as recorded by the Inspectional Services Department...\$300 Fine
 - iii. More residents on the premises than allowed on two (2) or more occasions as recorded by the Inspectional Services Department...\$300 Fine
 - iv. If two (2) or more of the above fines are warranted in any 12-month period or if three (3) or more of the above fines are warranted in a 36-month period...Denial of License Renewal.

Sec. 17-149. Reserved.

CURRICULUM VITAE

NAME Gary Carl du Moulin
ADDRESS 24 Myerson Lane, Newton Centre, MA
DATE OF BIRTH October 14, 1947
PLACE OF BIRTH Belle Harbor, New York

EDUCATION

1969 B.S., Norwich University, Northfield, Vermont
1971 M.S., Northeastern University, Boston, Massachusetts
1980 M.P.H., School of Public Health, Boston University School of Medicine, Boston, Massachusetts
1982 Graduate, The Command and General Staff College, Ft Leavenworth, Kansas
1984 Ph.D., Boston University School of Medicine, Division of Graduate Medical Sciences, Boston, MA (Title of Dissertation: "The Pathophysiology of Gram Negative Bacillary Sepsis: Multi-organ Responses to Bacteremic Challenge in a Rat Model of Peritonitis")

LICENSURE AND CERTIFICATION

1973 Registered Microbiologist, American Academy of Microbiology, License #937
1990 Director, Laboratory of Cellular Immunology and Cancer Diagnosis, U.S. Dept of Health and Human Services License #20-1150

- 1992 Regulatory Affairs Certified - Regulatory Affairs
Professional Society - Certificate #562
- 2001 Tissue Bank Director, Genzyme Biosurgery
ID No. CP097TP019, New York State Department of Health

ACADEMIC APPOINTMENTS

- 1976-1984 Associate in Anesthesia, Harvard Medical School,
Boston, Massachusetts
- 1984-1985 Instructor in Anesthesia, Harvard Medical School,
Boston, Massachusetts
- 1985-1989 Assistant Professor of Anesthesia, Harvard Medical
School, Boston, Massachusetts
- 1990-1991 Adjunct Professor of Chemical Engineering and
Senior Research Fellow, Center for Biotechnology Engineering,
Northeastern University, Boston, Massachusetts
- 2013-present Adjunct Associate Professor of Drug Regulatory Affairs
Massachusetts College of Pharmacy and Health Sciences University

PRINCIPAL CLINICAL AND HOSPITAL SERVICE RESPONSIBILITIES

- 1971- 1973 Captain, U.S. Army, Chief of Microbiology, Womack
Army Hospital, Fort Bragg, North Carolina
- 1978 - 1989 Director, Anesthesia/Respiratory Therapy Equipment
Assessment Unit, Beth Israel Hospital, Boston, MA
- 1989 - 1993 Commanding Officer (Colonel), 399th Combat Support Hospital,
U.S. Army Reserve
- 1993 - 1997 Chief of Staff (Colonel), 804th Medical Brigade,
U.S. Army Reserve

PRINCIPAL INDUSTRIAL RESPONSIBILITIES

- 1989-1992 Director, Quality Assurance / Quality Control,
Cellcor Inc. Newton, MA

1992-1995 Vice President, Quality Assurance / Quality Control,
Cellcor Inc. Newton, MA

1995-1997 Director, Quality Systems
Genzyme Tissue Repair Inc., Cambridge, MA

1997- 2000 Senior Director, Quality Systems
Genzyme Tissue Repair Inc., Cambridge, MA

2000- 2007 Vice President, Quality Operations
Genzyme Biosurgery, Cambridge, MA

2007 – Present Senior Director, Quality Compliance
Genzyme Corporation, Cambridge, MA

OTHER PROFESSIONAL POSITIONS

1972-1973 Microbiologist, Venereal Disease Screening Program,
North Carolina Department of Public Health

1973-1976 Research Assistant, Harvard Medical School at the
Beth Israel Hospital, Boston, Massachusetts

1977-1982 Major, 323rd Medical Laboratory, U.S. Army Reserve
1980 Faculty, American Society of Anesthesiologists Regional
Workshop in Hazards and Pitfalls of Anesthesia Equipment,
Chicago, Illinois

1980 Faculty, New York State Society of Anesthesiologists' 34th
Postgraduate Assembly on Anesthesia Technology, New York

1980 Consultant, Tuberculosis Control Division, State of Massachusetts
(Epidemiologic investigation of non-tuberculous mycobacterial
Disease in the State of Massachusetts)

1981 Panel Member, U.S. Environmental Protection Agency Peer
Review Workshop in Microbial Contamination of Water
Arlie House, Virginia

1982-1986 Lieutenant Colonel, Executive Officer, 323rd Medical
Laboratory, U.S. Army Reserve

1985 National Councillor, Northeast Branch, American Society for
Microbiology

1985-1986 Vice President, Northeast Branch, American Society for
Microbiology

1986-1988 President, Northeast Branch, American Society for
Microbiology

1986-1989 Commanding Officer, 323rd Medical Laboratory,
U.S. Army Reserve

1986 Faculty, "AIDS in the Hospital, Home, and Community,
Advances in Care and Challenges for 1987" Boston, MA

- 1987 Promoted to Colonel, Medical Service Corps, U.S. Army
- 1988 Faculty, "International Symposium on Nosocomial Pneumonia, Nosocomial Infection Control in Intensive Care" Freiberg, Germany
- 1988 Faculty, "Waterborne Disease Agents and the Immuno-compromised - A Public Health Issue?" American Public Health Association Annual Meeting, Boston, MA
- 1991 Faculty, International Conference on Nosocomial Infection Control in Intensive Care, Freiberg, Germany

AWARDS AND HONORS

- 1969-1971 Northeastern University Tuition Assistantship, Department of Biology, Northeastern University, Boston, MA
- 1970 Phi Sigma Honor Society for Biological Research, Northeastern University
- 1973 Army Commendation Medal
- 1983 Army Achievement Medal
- 1987 Board of Fellows, Norwich University, Northfield, VT
- 1989 Army Commendation Medal with Oak Leaf Cluster
- 1990 Army Commendation Medal with 2nd Oak Leaf Cluster
- 1990 Meritorious Service Medal
- 1992 Expert Field Medical Badge
- 1993 Meritorious Service Medal with Oak Leaf Cluster
- 1998 Meritorious Service Medal with 2nd Oak Leaf Cluster
- 2000 Legion of Merit

MAJOR COMMITTEE ASSIGNMENTS

- 1972-1973 Infection Control Committee, Womack Army Hospital, Fort Bragg, NC
- 1977-1989 Committee on Infection, Beth Israel Hospital, Boston, MA,
- 1979-1989 Hospital Safety Committee (chairman), Beth Israel Hospital Boston, MA
- 1981-1982 Committee on Quality Assurance and Risk Management, Beth Israel Hospital, Boston, MA
- 1991-1998 Industrial Advisory Board, Dept of Biology, Northeastern University
- 1997-2000 Advisory Panel on Gene and Cell Therapies, United States Pharmacopeia, Rockville, MD
- 1998-2000 Editorial Board - *Biologics - Regulatory Affairs Focus*
- 2000-2002 Chairman, Editorial Board- *Regulatory Affairs Focus*

- 2000-present Gene Therapy, Cell Therapy, and Tissue Engineering Expert Committee
United States Pharmacopeia
- 2006-present Chairman, Ad hoc Subcommittee on Fetal Bovine Serum, United States
Pharmacopeia
- 2008-present Editorial Advisory Board – *Regenerative Medicine*
- 2009-present Alternate Member, Scientific and Medical Research Funding Working Group
California Institute for Regenerative Medicine (CIRM)

PROFESSIONAL SOCIETIES

- 1971 American Society for Microbiology
- 1973 American Academy of Microbiology
- 1977 New York Academy of Sciences
- 1977 Society of Armed Forces Medical Laboratory Scientists
- 1981 American Association for the Advancement of Science
- 1986 American Association of Pathologists
- 1989 American Society for Quality Control
- 1989 Regulatory Affairs Professional Society
- 1992 Cell Transplant Society
- 1992 Association of Military Surgeons of the United States

TEACHING EXPERIENCE

- 1976-1977 Lecturer, Department of Infectious Diseases,
Children's Hospital Medical Center, Boston, MA
- 1976-1978 Lecturer, College of Pharmacy and Allied Health
Professions, Northeastern University, Boston, MA
- 1976-1989 Lecturer, Department of Anesthesia, Beth Israel
Hospital, Boston, MA
- 1977-1989 Lecturer, Department of Microbiology, Boston University
School of Medicine
- 2000- 2003 Lecturer, Health Professions and Sciences Program,
Northeastern University, Boston, MA

PATENTS

Inventors: du Moulin GC, Hedley-Whyte J, Lynch SE
Invention: CA 1114271 - Assay of Gram-Negative Bacteria
Country: Canada
Issued: Dec 15, 1981
Patent owner: President and Fellows of Harvard College

ORIGINAL REPORTS

1. Klick JM, du Moulin GC, Hedley-Whyte J, Teres, D, Bushnell LS, Feingold, DS: Prevention of Gram-negative bacillary pneumonia using polymyxin aerosol as prophylaxis. II. Effect on the incidence of pneumonia in seriously ill patients. *J. Clin. Invest.* 1975; 55:514-519.
2. Feeley TW, du Moulin GC, Hedley-Whyte J, Bushnell LS, Gilbert JP, Feingold DS: Aerosol polymyxin and pneumonia in seriously ill patients. *New Eng. J. Med.* 1975; 293:471-475.
3. Eichhorn JH, Bancroft ML, Laasberg LH, du Moulin GC, Saubermann AJ: Contamination of medical gas and water pipelines in a new hospital building. *Anesthesiology.* 1977; 46:286-289.
4. du Moulin GC, Saubermann AJ: The anesthesia machine and circle system are not likely to be sources of bacterial contamination. *Anesthesiology.* 1977; 47:353-358.
5. Klick JM, du Moulin GC: An oxygen analyzer as a source of Pseudomonas. *Anesthesiology.* 1978; 49:80-81.
6. du Moulin GC, Stottmeier KD: Use of cetyl-pyridinium chloride in the decontamination of water for culture of mycobacteria. *Appl. Env. Microbiol.* 1978; 36:771-773.
7. du Moulin GC, Dasse P, Miller MC, Friedland G: Staphylococcal outbreak in an intensive care unit: A narrative account of its management. *Heart and Lung.* 1979; 8:94-99.
8. du Moulin GC: Airway colonization by Flavobacterium in an intensive care unit. *J. Clin. Microbiol.* 1979;10:155-160.
9. Bancroft ML, du Moulin GC, Hedley-Whyte J: Hazards of hospital bulk oxygen delivery systems. *Anesthesiology.* 1980; 52:504-510. (reprinted In *Respiratory Care* 1981; 26:339-346.)
10. du Moulin GC, Doyle GO, MacKay J, Hedley-Whyte J: Bacterial fouling by of a hospital closed loop cooling system by Pseudomonas sp. *J. Clin. Microbiol.* 1981; 13:1060-1065.

11. du Moulin GC, Paterson DG, Hedley-Whyte J, Lisbon A: Aspiration of gastric bacteria in antacid - treated patients: A frequent cause of postoperative colonization of the airway. *Lancet*. 1982; 1:242-245.
12. Fleischman RW, du Moulin GC, Esber HJ, Ilievski V, Bogden AE: Nontuberculous mycobacterial infection in two Rhesus monkeys due to *Mycobacterium intracellulare* serotype 10. *J. Am. Vet. Med. Assoc.* 1982; 181:1358-1362.
13. du Moulin GC, Lynch SE, Hedley-Whyte J, Broitman SA: Detection of Gram-negative bacteremia by *Limulus* amebocyte lysate assay: Evaluation in a rat model of peritonitis. *J. Infect. Dis.* 1985;151:148-152.
14. du Moulin GC, Paterson D, Hedley-Whyte J, Broitman SA: *E. coli* peritonitis and bacteremia cause increased blood-brain barrier permeability. *Brain Research*. 1985;340:261-268.
15. du Moulin GC, Sherman IH, Hoaglin DC, Stottmeier, KD: *Mycobacterium avium* complex: An emerging pathogen in Massachusetts. *J. Clin. Microbiol.* 1985;22: 9-12.
16. du Moulin GC, Skea, WM, Bartolini, BA: Microbiologic assessment of drinking water potability during brigade operations. *Milit. Med.* 1986;151:570-573.
17. du Moulin GC, Coleman EC, Hedley-Whyte J: Bacterial colonization and endotoxin content of a new renal dialysis water system composed of acrylonitrile butadiene styrene. *Appl. Environ. Microbiol.* 1987;53: 1322-1326.
18. Doos WG, du Moulin GC, Jordi H, Orf HW, Seder R, Skea WM: Field tests on four state-of-the-art blood chemistry analyzers in a mobile laboratory setting. *Milit. Med.* 1988;153: 81-86.
19. Pelletier PA, du Moulin GC, Stottmeier KD: Mycobacteria in public water supplies: Comparative resistance to chlorine. *Microbiol. Sci.* 1988; 5:147-148.
20. du Moulin GC, Pelletier PA, Stottmeier KD, Tsang AY, Hedley-Whyte J: Concentration of *Mycobacterium avium* by hospital hot water systems. *JAMA* 1988; 260:1599-1601.
21. du Moulin GC, Asiaf JR, Cesaro P, Prewandowski KA, Silva CV, McKeon MM, Koblitz KA; Field evaluations of the Testuria and Selecticult systems for the in vitro screening of bacteriuria. *J. Military Medical Laboratory Science*; 1991; 19:196-198.
22. Pelletier PA, Carney EM, du Moulin GC: Comparative resistance of *Mycobacterium avium* complex and other nontuberculous mycobacteria to chloramine.

Proceedings of the Annual Meeting of the American Water Works Association. June 1991.

23. du Moulin GC, Hamilton DL, Price JE, Kosik ZJ, Liu VYS, Osband ME: Quality assurance and quality control (QA/QC) in Biocare. Autolymphocyte Therapy as a model. *Biopharm* 1990; 3:30-35.

24. du Moulin GC, Price JE, Shen YJ, Osband ME: Use of the *Limulus* amebocyte lysate assay (LAL) assay in Living Cell Therapies. *Biopharm* 1992; 5:32-37.

25. du Moulin GC, Liu V, Osband ME: Implementation of an effective program for Quality Assurance and Quality Control in Living Cell Therapies: A two year experience with Autolymphocyte Therapy. *Transplantation Proceedings* 1993;24:2803-2808.

26. du Moulin GC, Stack J, Kruger R, Liu V: Quality Assurance/Quality Control Compliance Program: A Cellular Therapy Developer's Perspective. *Regulatory Affairs* 1993;5:461-472.

27. du Moulin GC, Stack J, Pitkin Z, et al.: A Review of the Development and Implementation of a model QA/QC System Supporting the Multisite Delivery of a Lymphocyte Based Therapy for Renal Cell Carcinoma: A Three Year Experience. *Biotech Bioengineer* 1994; 43:693-699.

28. Hamilton D, Goodwin, J, Clarke M, du Moulin, G, et al.: Preliminary Validation of an activation assay for *ex vivo* activated T cells utilized in cancer immunotherapy. *Biotech Bioengineer* 1994; 43:700-705.

29. du Moulin GC, Pitkin Z, Shen, Y, et al.: Overview of a Quality Assurance/Quality Control Compliance Program Consistent with FDA Regulations and Policies for Somatic Cell and Gene Therapies: A Four Year Experience. *Cytotechnology* 1994 15:365-372.

30. Montecalvo MA, Forseter G, Tsang AY, du Moulin GC, Wormser GP: Colonisation of potable water with *Mycobacterium avium* complex in homes of HIV-infected patients. *Lancet* 1994; 313:1639-1640 (letter).

31. Slavin, JD, du Moulin GC, Borden, S, Tabaroni, R, DeProspero, D: Hospital Integrated Lanes Training (HILT): Brigade Directed Implementation of a Medical Lanes Training Program During Annual Training. *Milit. Med.* 1994;159:704-708.

32. du Moulin GC, Haggerty N, Parker WA, Humphrey JC, Tabaroni RF, Slavin JD: Experiences with Extended Duration Medical Laboratory Support in Deployable Medical Systems. *Milit. Med.* 1996; 161: 521-525.

33. Pitkin, Z, Chhugani P, Chenette A, Shen Y, du Moulin GC: Validation of an Automated Method of Endotoxin Testing for Use in the end product testing of *ex vivo* Activated T-lymphocytes used in a Somatic Cell Therapy. *Biotech and Bioengineer*. 1996;50:541-547.
34. Morohashi M, du Moulin GC, Barone L, Mayer GL: A Case Report on Industrialization of Autologous Chondrocyte Implantation in the United States. *Biopharmacology*. 1997 ;23:568-571.
35. Mayhew T, Williams GR, Senica MA, Kuniholm G, du Moulin GC: Validation of a Quality Assurance Program for Autologous Cultured Chondrocyte Implantation. *Tissue Engineering* 1998; 4:325-334.
36. du Moulin, GC and Morohashi, M: Development of a regulatory strategy for the cellular therapies: An American perspective. *Materials Science and Engineering* 2000; C13:15-17.
37. du Moulin, GC. Some final thoughts. *Regulatory Affairs Focus* 2002; 7:40.
38. du Moulin GC, Entstrasser, CA, Kielpinski GL: Challenges of quality assurance and product release in patient specific technologies. *Regulatory Affairs Focus* 2004; 9:40-42.
39. Kielpinski G, Prinzi S, Duguid J, Price, du Moulin G. Validation of a automated sterility test method for release of autologous cultured chondrocytes for implantation. *Cytotherapy* 2005: 7:531-541.
40. Duguid J, du Moulin G. Automated rapid microbiological methods for the biopharmaceutical industry : Selection, validation and implementation for an autologous cell therapy product. *Am. Pharm Rev*. 2009: 74-77.
41. Duguid J, Kielpinski G, Seymour B, du Moulin G. Risk assessment for a rapid mycoplasma test optimized for cell therapy products. *Am Pharm Rev*. 2009:100-104.

REVIEWS

1. du Moulin GC, Hedley-Whyte J: A plea for moderation in anesthesia standards. *AORN Journal*. 1977;25:1025-1028.
2. du Moulin GC, O'Brien AP: Pulmonary tuberculosis in surgical patients. *Survey of Anesthesiology*. 1978;22:590-591.
3. du Moulin GC, Hedley-Whyte J: Bacterial interactions between anesthesiologists, their patients, and equipment. *Anesthesiology*. 1982;57:37-41.
4. Hedley-Whyte J, du Moulin GC: The environment of endotracheal tubes in the colonization of the upper airway and development of pneumonia. *Proc. Workshop on Tracheal Tubes*, HFK 310, Bureau of Medical Devices (RC Shupak and TC Deas, eds.), Silver Spring, Department of Health and Human Services. 1982; 91-102.
5. du Moulin GC, Hedley-Whyte J: The stomach as a bacterial reservoir; clinical significance. *Int. Med. for the Specialist*. 1982; 3:47-55.
6. du Moulin GC, Hedley-Whyte J: Hospital-associated viral infection and the anesthesiologist. *Anesthesiology*. 1982;59:51-65.
7. Bancroft ML, du Moulin GC: Re-evaluating the role of respiratory care equipment and practices in the prevention of nosocomial pneumonia. *Resp. Care*. 1983;28:165-168.
8. du Moulin GC, Paterson D: The clinical relevance of post mortem microbiologic examination: A review. *Human Pathol*. 1985;16:539-548.
9. du Moulin GC, Stottmeier KD: Waterborne mycobacteria: An increasing threat to health. *ASM News* 1986;52:525-529.
10. du Moulin GC, Love W: The value of autopsy microbiology. *Clin. Microbiol. Newsl*. 1988; 10:165-167.
11. du Moulin GC: Minimizing the potential for nosocomial pneumonia: Architectural, engineering, and environmental considerations for the intensive care unit. *Eur. J. Clin. Microbiol*. 1989;8:69-74.
12. du Moulin GC: Tracheobronchial colonization. *Klin. Wochenschr*. 1991; (Suppl XXVII) 69:6-11.

13. Janoschek R, du Moulin GC: Ultraviolet Disinfection in Biotechnology: Myth vs. Practice. *Biopharm* 1994;7: 24-31.
14. Ostrovski S, du Moulin GC: Achieving Compliance in Validation and Metrology for Gene and Cell Therapy. *Biopharm* 1995;8:20-28.
15. Kielpinski G, Kehinde O, Kaplan B, Bonn T, Buxton D, Wescott M. , Arangio A, Duguid J, Thyne, C, du Moulin, GC: Quality Control for *ex vivo* Cell Therapy. *Biopharm* 1997; 10:34-40.
16. Omstead D, Baird L, Christenson L, du Moulin G, Tubo R, Maxted D, Davis J, Gentile F: Voluntary Guidance for the Development of Tissue-Engineered Products. *Tissue Engineering* 1998; 4:239-266.
17. du Moulin GC: The potential and challenges of tissue engineering activities in the United States. International Technology Research Institute Workshop on Tissue Engineering Research in the United States. June, 2000.
18. Sentissi A, du Moulin GC: Quality systems for xenotransplantation products. *Regulatory Affairs Focus*, 2000; 35-40 (June).
19. du Moulin GC: The challenges and future of cell therapy and tissue regeneration. *Symposium Proceedings, BioJapan 2000*, 337-346.
20. du Moulin, GC: Cell therapy and tissue engineering: An overview. *Bioprocessing Journal* 2003;2:17-21.
21. Denoya CD, Colgan ST, du Moulin GC. Alternative microbiological methods in the pharmaceutical industry. The need for a new microbiology curriculum. *American Pharmaceutical Review* 2006;9:10-18.
22. Duguid J, Balkovic, E, du Moulin GC. Rapid Microbiological Methods: Where are they now? *American Pharmaceutical review* 2011;13:18-25.
23. du Moulin GC, Kunicki M, Zechel C: Universal Access Sailing at Boston's Community Boating. *Palaestra* 2013; 27:9-17.

BOOKS AND MONOGRAPHS

1. du Moulin GC, Lynch SE, Hedley-Whyte J, Broitman SA: The detection of Gram-negative bacteria in the blood of septic rats by a *Limulus* amoebocyte lysate assay. In SW Watson, J Levin, TJ Novitsky (eds.), Detection of

Bacterial Endotoxins with the Limulus Amebocyte Lysate Test, Alan R. Liss, Inc., New York. Prog. Clin. Biol. Res. 1987; 231:349-356.

2. du Moulin GC: Minimizing the potential for infection in the hospitalized burned patient: Architectural, engineering, and environmental considerations. In Acute Management of Burn Trauma, JAJ Martyn (ed.), W.B. Saunders Company, Philadelphia, 1990.

3. du Moulin GC, Mayhew T, Kielpinski G, Citron M, Surgenor T: The Application of Good Manufacturing Practices (GMP) to the Expansion of Human Cell Populations for Cell and Tissue Therapy. in Animal Cell Technology: Basic and Applied Aspects (*Proceedings of the 8th Annual Meeting of the Japanese Association of Animal Cell Technology*). ed. Funatsu K, Shirai Y, Matsushita T, Kluwer Academic Publishers, Dordrecht, 8:19-23, 1997.

4. Schaeffer S, Stone BB, Wolfrum J, and du Moulin GC. "Ex vivo Autologous Cell Therapies" in Biopharmaceutical Process Validation ed. Sofer G, and Zabriskie, D.W., Marcel Dekker Inc. New York, 2000.

5. Expert Committee for Gene Therapy, Cell Therapy and Tissue Engineering. "<1046> Cell and Gene Therapy Products" (General Information Chapter).in United States Pharmacopeia-National Formulary 26, Rockville MD, US Pharmacopeial Convention, pp2257-2285, 2002.

6. du Moulin GC, "Adventitious Agents and Chemical Toxicity" in Methods of Tissue Engineering, ed. Atala, A and Lanza, R. Academic Press, San Diego, 2002.

7. du Moulin GC, Entstrasser CA, Kielpinski G. "Quality control in producing cells for tissue engineering". In Tissue Engineering in Musculoskeletal Clinical Practice. American Association of Orthopaedic Surgeons. Rosemont, IL, 2004.

8. Expert Committee for Gene Therapy, Cell Therapy and Tissue Engineering. "<1043> Ancillary Materials for Cell, Gene and Tissue Engineered Products" (General Information Chapter).in United States Pharmacopeia-National Formulary 29, Rockville MD, US Pharmacopeial Convention, pp.2814-2821, 2006.

9. du Moulin GC, Kielpinski G, Prinzi S, Duguid J, and Price A. "Detection of microbial contaminants for cell therapy products: Validation of an automated microbial detection system" in Encyclopedia of Rapid Microbiological Methods, ed. Miller M., Parenteral Drug Association, Bethesda, MD, pp273-290, 2005.

10. Expert Committee for Gene Therapy, Cell Therapy and Tissue Engineering. "<1024> Bovine Serum" (General Information Chapter). *Pharmacoepial Forum* 35(3) 629-647, 2009.

11. du Moulin GC. "Approaches to validation for cellular therapy products. In Cellular Therapy: Principles, Methods, and Regulations. Ed. Areman EM and Loper K. American Association of Blood Banks. Bethesda, MD, 2009.

12. Expert Committee for Gene Therapy, Cell Therapy and Tissue Engineering. "<90> Fetal Bovine Serum – Quality Attributes and Functionality Tests. *Pharmacoepial Forum* 35(5) 1219-1224, 2009.

ABSTRACTS

1. Klick JM, du Moulin GC, Hedley-Whyte J, Teres D, Bushnell LS, Feingold DS: Prevention of Gram-negative bacillary pneumonia with polymyxin B aerosol. *Crit. Care Med.* 1975; 3:38.

2. du Moulin GC, Lynch SE, Hedley-Whyte J: Utilization of the *Limulus* amoebocyte lysate assay in the rapid diagnosis of Gram-negative bacteremia. *Fed. Proc.* 1978; 37:319.

3. du Moulin GC, Friedland G, Indorato K, Stottmeier KD: Contamination of mycobacterial specimens with a waterborne strain of *Mycobacterium avium*. Abstr. 78th Ann. Meeting Am. Soc. Microbiol., Washington, D.C. 1978; p.206.

4. du Moulin GC: Lower respiratory tract colonization of seriously ill patients by a waterborne strain of *Flavobacterium*. Abstr. 78th Ann. Meeting Am. Soc. Microbiol. Washington, D.C. 1978; p.285.

5. Dasse P, Boyle C, du Moulin GC, Stottmeier KD, Friedland G: Pseudoepidemic traced to contamination of clinical specimens by waterborne atypical mycobacteria. Abstr. Assoc. for Practitioners in Inf. Control, 1979 *APIC Journal*. 1979; 7:29-30.

6. du Moulin GC, Lynch SE, Bousquet FB III, Hedley-Whyte J: Inability to reproduce bacteremia in rats paralyzed and ventilated with nitrous oxide and oxygen. *Fed. Proc.* 1979; 38:1002.

7. du Moulin GC, Lynch SE, Chien, N, Hedley-Whyte J: Gram-negative bacteremia and the *Limulus* amebocyte lysate assay (LAL). *Fed. Proc.* 1980; 39:1178.
8. du Moulin GC, Doyle GO, MacKay J, Hedley-Whyte J: Biofouling by *Pseudomonas fluorescens* of a hospital closed loop cooling system. *Abstr. 80th Ann. Meeting Am. Soc. Microbiol.*, Washington, DC. 1980; p. 179 (N94).
9. du Moulin, GC, Sherman IH, Stottmeier KD: *Mycobacterium intracellulare*; an emerging pathogen in Massachusetts. *Abstr. 81st Ann. Meeting, Am. Soc. Microbiology*, Washington, DC. 1981; p.269 (C43).
10. Somersille CS, du Moulin GC, Hedley-Whyte J: *E. coli* peritonitis after C3 depletion: sensitive assay of chemotactic behavior based on species differences. *Fed. Proc.* 1982; 41:325.
11. du Moulin GC, Merrill A, Sherman IH, Stottmeier KD: *M. avium-intracellulare* in Massachusetts. *Abstr. 82nd Ann. Meeting, Am. Soc. Microbiology*, Washington, DC. 1982; p.305 (C202).
12. du Moulin GC, Laasberg LH, Lynch SE, Hedley-Whyte J: Effect of naloxone and morphine on plasma leu and met enkephalin in rats with *E. coli* peritonitis. *Fed. Proc.* 1982; 42:301.
13. du Moulin GC, Jaciow D, Teres D, Stottmeier KD: Significance of respiratory isolates of *Mycobacterium avium-intracellulare* (MAIC). *Abstr. 23rd Interscience Conference on Antimicrobial Agents and Chemotherapy*. Am. Soc. Microbiology, Washington DC. 1983; p.278 (1048).
14. du Moulin GC, Paterson D, Hedley-Whyte J: *E.coli* peritonitis is a cause of increased blood-brain barrier permeability. *Fed. Proc.* 1984; 43:381.
15. du Moulin GC, Lynch SE, Hedley-Whyte J, Broitman SA: Reticuloendothelial clearance of radiolabeled *E. coli* in experimental peritonitis and bacteremia. *Abstr. 85th Ann. Meeting, Am. Soc. Microbiology*, Washington, DC. 1985; p.29 (B66).
16. du Moulin GC, Coleman EC, Hedley-Whyte J: Bacterial colonization and endotoxin content in a new renal dialysis water composed of acrylonitrile butadiene styrene (ABS). *Fed. Proc.* 1986; 45:639.
17. du Moulin GC, Skea WM, Bartolini BA: Microbiologic assessment of drinking water potability during brigade operations. *Abstr. 11th Ann. Meeting, Soc. Armed Forces Med. Lab. Scientists*. 1986; 15:18.

18. du Moulin GC, Coleman EC, Tsang AY, Stottmeier KD: Contamination of drinking water supplies with *Mycobacterium avium* complex (MAC). *Abstr. 26th Intersci. Conf. Antimicrobial Agents and Chemotherapy*, New Orleans, LA. 1986; p.297 (1101).
19. Pelletier PA, Gates SG, Carney EM, du Moulin GC: Comparative resistance of waterborne mycobacteria to chlorine. *Abstr. 87th Ann. Meeting Am. Soc. Microbiol.*, Atlanta, GA, 1987; p. 250 (N33).
20. Johnston LC, du Moulin GC: Microbial impact to public drinking water supplies by nonmigratory Canada geese. *Abstr. 87th Ann. Meeting, Am. Soc. Microbiol.*, Atlanta GA, 1987; p.249 (N29).
21. De Girolami PC, Tsang AY, du Moulin GC, Rose R, Sisson G, Stottmeier KD: Serovars of *Mycobacterium avium* complex isolated from patients with AIDS. *Abstr. 87th Ann. Meeting Am. Soc. Microbiol.*, Atlanta, GA, 1987; p.128 (V12).
22. Gates SG, du Moulin GC, Hindman B, Hedley-Whyte J: Survival of bacteria in anesthesia breathing circuits. *Fed. Proc.* 1987; 46:1303 (5755).
23. du Moulin GC, Skea WM: Contamination of a lake by sewage effluent caused by increased military activity. *Abstr. 12th Ann. Meeting, Soc. Armed Forces Med. Lab. Scientists.* 1987; 16:18.
24. Doos WG, Orf HW, Seder RH, Jordi H, Skea WM, du Moulin GC: Field trials of four chemistry analyzers. I. Mobile medical laboratory deployment. *Abstr. 12th Ann Meeting, Soc. Armed Forces Med. Lab. Scientists.* 1987; 16:15.
25. Orf HW, Seder RH, Doos WG, Jordi H, Skea WM, du Moulin GC: Field trials of four chemistry analyzers. II. Quantitative evaluation. *Abstr. 12th Ann. Meeting Soc. Armed Forces Med. Lab. Scientists* 1987; 16:21.
26. Seder RH, Doos WG, Orf HW, Jordi H, Skea WM, du Moulin GC: Field trials of four chemistry analyzers. III. Qualitative evaluation. *Abstr. 12th Ann. Meeting, Soc. Armed Forces Med. Lab. Scientists.* 1987; 16:22.
27. Pelletier PA, du Moulin GC: Comparative resistance of waterborne mycobacteria to chloramine. *Abstr. 88th Ann. Meeting, Am. Soc. Microbiol.* 1988; p.256 (N-71).
28. Pelletier PA, du Moulin GC, Stottmeier KD: Prevalence of mycobacteria in a renal dialysis water system. *Abstr. 88th Ann Meeting, Am. Soc. Microbiol.* 1988; p. 413 (L-12).

environment. *Abstr. Proc. 15th Ann. Meeting Soc. Armed Forces Med. Lab. Scientists.* 1990; 19:55 (P-15).

40. Wormser G, Forseter G, Montecalvo MA, Tsang AY, du Moulin GC: Recovery of *Mycobacterium avium* complex (MAC) from the home tap water of HIV-infected patients in New York State. *31st Interscience Conference on Antimicrobial Agents and Chemotherapy.* 1991,pg 38 (abstract 240).

41. du Moulin GC, Hamilton D, Oommen S, Osband ME: Development of an effective diagnostic laboratory program to support the adoptive immunotherapy of cancer. *Fed Proc* 1992; 6:2886.

42. du Moulin GC, Cyr C, Chew-Darke J, Pitkin Z, Stack J, Osband ME, Torres B: Intrinsic contamination by Bacillus in blood culture media: Implications for Quality Control in adoptive immunotherapy. *Proc 1992 Ann Meeting Am Soc Microbiol.* 1992; 436 (C-95).

43. Eylath A, du Moulin GC, Cyr C, Pitkin Z, Shen Y, Liu V., Osband ME: Validation of the Isolator "Isostat" Microbial System for sterility testing of cells in adoptive immunotherapy. *Proc. 1992 Ann. Meeting Am. Soc. Microbiol.* 1992; 428 (C-48).

44. Borden S, du Moulin GC, Foehr D: Beyond Regional Training Sites: DEPMEDS training for Army medical personnel is enhanced when RTS equipment training is augmented at unit level by integration of the DOD DEPMEDS Clinical Treatment Policies and Data Base. *Soc Armed Forces Med Lab Scientists Proceed.* 1992; 21:50 (DS-8).

45. du Moulin GC, Hamilton D, Oommen, C. Osband ME: Development of an effective diagnostic laboratory program to support the adoptive immunotherapy of cancer. *Cell Transplantation* 1992; 1:107 (16).

46. du Moulin GC, Liu V, Eylath A, Cyr C, Pitkin Z, Shen YJ, Osband ME: Testing of living cells for sterility and endotoxin prior to patient infusion. *Cell Transplantation* 1992; 1:107 (17).

47. Ross SD, Liu V, du Moulin G, Osband ME: Challenges in performing clinical trials using living cell therapies. *Cell Transplantation* 1992; 1: 233 (256).

48. du Moulin GC, Borden S, Foehr D, Sullivan J, Paul C, DePriest O, Chabior L, Petrangelo J, Andrade L, Allison D, Martinez-Dickerson S: Hospital Integrated Lane Training (HILT): Review of initial implementation for a combat support hospital (CSH) during annual training. *J Milit. Med. Lab. Sci.* (22, 1993).

49. Borden S, Foehr D, du Moulin GC: Hospital Integrated Lane Training (HILT). *J. Milit. Med. Lab Sci.* (22, 1993).

50. du Moulin GC, Liu V, Chew-Darke J, Conti E, Cyr C, Peart J, Pitkin Z, Shen Y, Stack J, Hamilton D, Davies B, White A, and Osband ME: Implementation of an effective program for quality assurance and quality control in living cell therapies. A 2 year experience with autolymphocyte therapy. *Proc. Amer Chem Soc* (Abstract #120, 1993).

51. Clarke MB, du Moulin GC, Gaines D, Liu V: Validation of sterility testing media used in the autolymphocyte therapy of cancer: Application of Quanti-Cult System. *Proc 1993 Meeting Am Soc Microbiol* (Q276, 1993).

52. Miesowicz F, du Moulin GC, Liu V, Hamilton D, Davies B, Pitkin Z, Stack J, Chew-Darke J, and Osband ME: Development and Implementation of Delivery and Quality Control System for Cellular Therapies: Experience in 500 Patients. *Cell Transplantation* 1994;3:S53.

53. Cyr C, Pitkin Z, Shen Y, du Moulin GC: Evaluation of an Automated Method of Endotoxin Testing for Use in the End Product Testing of *ex vivo* Activated T-Lymphocytes Used in the Adoptive Immunotherapy of Cancer. *Proceedings of the Cell Transplant Society*:1994,3:238 (108).

54. Pitkin Z, Cyr C, Shen Y, Perkins R, du Moulin GC. Quality Control Sterility Testing Program for *ex vivo* Activated Lymphocytes: Recovery of *Propionibacterium acnes* (*P. acnes*) From Apheresis Cell Product (ACP). *Proceedings of the Cell Transplant Society* :1994, 3:222 (46).

55. Pitkin Z, Chhugani P, Shen Y, Chennette A, du Moulin GC: Validation of an automated method of endotoxin testing for use in the end product testing of *ex vivo* activated T lymphocytes used in the adoptive immunotherapy of cancer. *Proc 1995 Am Soc Microbiol.* (1995).

56. du Moulin GC, Mayhew T, Kielpinski G, Citron M, and Surgenor T: The application of Good Manufacturing Practices (GMP) to the Expansion of Human Cell Populations for Cell and Tissue Therapy. *Proc. Eighth Annual Meeting of the Japanese Association for Animal Cell Technology* (1995).

57. Mayhew T, du Moulin GC, Williams R, Garcia R, Entstrasser C, Peart J: Quality Assurance for Cells Manipulated *ex vivo* for Autologous Transplantation. *Proceedings of the 1996 Annual Meeting of the American Association of Tissue Banks.*(1996).

58. du Moulin GC :Aspects of Quality Control/Quality Assurance for Cell and Tissue Based Therapies. *Proceedings of the 1st Annual Meeting, Process Development and Production Issues for Cellular Therapy and Tissue Engineering - The Williamsburg BioProcessing Foundation* (1996).