



# Quality Control Laboratories — QCL from Design to Validation



PBE, Pharma Bio Expert Inc
PBE-Expert Inc – CANADA
Accredited training organisation CPMT #0059104







#### PBE, Training Company Agreement CPMT #0059104







#### **Presentation Outline**

- 1. Course objectives
- 2. Objectives of GLP
- 3. Laboratories and compliance
- 4. Staff and Direction
- 5. Rooms and equipments
- 6. Procedures
- 7. Calibration and preventive maintenance
- 8. Raw data

- 9. Standards
- 10. Samples
- 11. Documentation
- 12. «OOS», CAPA & CC (Complaints Management)
- 13. Equipments and methods validation
- 14. 483 Observations / PAI
- 15. Conclusion
- 16. Evaluation









# REGULATORY FRAMEWORK & REFERENCES





#### REGULATORY FRAMEWORK & REFERENCES

- Canadian GMP and american cGMP
- 2. 25 ISO 17025 Guide General Requirements for the Competence of Testing and Calibration Laboratories.
- 3. Guide to Inspections of Pharmaceutical Quality Control Laboratories, FDA.
- 4. Guide to Inspections of Microbiological Pharmaceutical Quality Control Laboratories, FDA.

- 5. FDA, Federal Register, Vol. 60, No. 40, March 1, 1995.
- 6. ICH: Guideline on Validation of Analytical Procedures: Definitions and Terminology.
- 7. EMEA: ICH Topic Q 2 B, Validation of Analytical Procedures: Methodology, November 6, 1996.
- 8. Analytical Method Validation, Journal of Validation Technology, Volume 2, No 2, James D. Johnson and Gale E. Van Buskirk

SANTÉ CANADA MAPAO



23/05/2018

#### **REGULATORY FRAMEWORK & REFERENCES**

- A Life Cycle Approach to the Validation of Analytical Methods during Pharmaceutical Product Development, Part I and II, Pharmaceutical Technology, September 1994, Gerard C. Hokanson.
- 2. Defining a Master Plan for the Validation of Analytical Methods, Journal of Validation Technology, Vol. 3, No. 4, Paul A. Winslow and Richard F. Meyer.
- 3. Pre-Approval Inspections PAI/ Investigations
- 4. CPGM : Compliance Program Guidance Manual.

- Validation of Analytical Methodology,
   Journal of Validation Technology, Vol.
   No. 3, Harry G. Brittain.
- (FMD135) Field Management
   Directives Preoperational Reviews of Manufacturing Facilities
- 7. CPGM 7356.002 & 7346.832

http://www.fda.gov/cder/gmp/PAI-7346832.pdf

http://www.fda.gov/ora/cpgm/7356\_002/7 356-002FINAL.pdf









# 1- COURSE OBJECTIVES





#### 1- Course Objectives

1. Explain the different sections of Good Manufacturing Practices applicable to quality control laboratories.













#### 2- GLP Objectives

Ensure reliable, accurate and authentic data to make the right decisions:

- 1. Raw materials releasing, during production and for finished product.
- 2. Stability.
- 3. Recall.
- 4. Investigation.
- 5. Development.





#### 2- GLP Objectives

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## 3- QCL LABORATORIES AND COMPLIANCE



#### 3- QCL laboratories and compliance

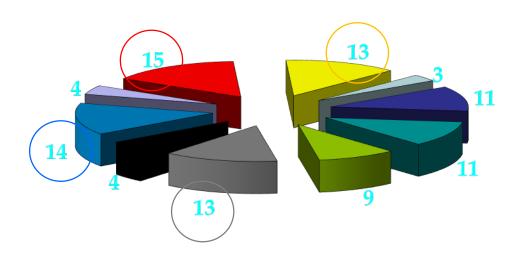
#### Non-compliance frequently observed by the FDA:

- 1. Inadequate validation of analysis methods.
- 2. Inadequate validation of equipments.
- 3. Repetition of poorly defined analysis.
- 4. Inadequate analyst training.
- 5. Unofficial notes.





### 3- QCL laboratories and compliance



- **□** Component control
- Records and reports
- Other
- Water System
- Process Validation
- Stability Program
- Equipment cleaning
- Plant
- Laboratories controls
- □ Processes controls







# 3- QCL laboratories and compliance CPGM 7346.832

#### FOOD AND DRUG ADMINISTRATION

COMPLIANCE PROGRAM GUIDANCE MANUAL

PROGRAM

7346.832

#### CHAPTER 46 - NEW DRUG EVALUATON

SUBJECT: PRE-APPROVAL INSPECTIONS / INVESTIGATIONS		IMPLEMENTATION DATE
		April 5, 2005
* REVISION: March 2005 revision to the PAI Program updates sample routing instructions (see especially pages 24-26) and change "forensic" to "profile." (Other		COMPLETION DATE
material from March 2004 issuance has not been updated.) *		October 1, 2007
DATA REPORTING		
PRODUCT CODES	PRODUCT/ASSIGNMENT CODES	
Use appropriate product codes.	(SEE BELOW)	

#### PROGRAM/ASSIGNMENT CODES

46832	NDA Pre-Approval Inspections/Methods Validation
46832B	NDA * Profile * Sample Collection/Analysis
46832C	NDA Biotest Sample Collection/Analysis
*46832M	Therapeutic Biologics Products (main program is
	56002M) *
52832	ANDA Pre-Approval Inspections/Methods Validation





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#### 3- QCL laboratories and compliance

#### **COMPLIANCE AUDIT:**

- 24. Audit Findings.
- 25. Audit Summaries.
- 26. Description of Major Changes
- 27. Obstacles
- 28. Follow-up of Past Nonconformities
- 29. Nonconformities
- 30. Areas not Audited





#### 3- QCL laboratories and compliance

**Verify if the laboratory (QCL):** 

. . .









# 4- PERSONNEL AND MANAGEMENT





#### 4- Personnel and Management

#### The person in charge of the laboratory:

- 1. is experienced
- has a degree in science related to the work being carried out
- has practical experience in the field or reports to a person with those qualifications

Canadian GMP, C.02.015





### 4- Personnel and Management

#### The person in charge of the laboratory:

1. ....

Canadian GMP, C.02.015









# 5- ROOMS AND EQUIPMENTS





#### 5- Rooms and Equipments

- 1. Similar principles as fabrication installations (GMP):
  - a. Dedicated Rooms:
    - i. Reception,
    - ii. Chemical reagent room,
    - iii. Physico-Chemical Laboratory
    - iv. Microbiological Laboratory
    - v. Administrative offices ...
  - b. Clean premises,
  - c. Orderly,
  - d. Used according to determined functions,
  - e. Rooms and work tables sufficiently spaced and functional





#### 5- Premises and Equipments



a. . i. .. ii. .. iii. .. iv. .. v. .. b. .. c. .. d.

e.









### **6- PROCEDURES**







# 7- CALIBRATION AND PREVENTIVE MAINTENANCE









### 8- RAW DATA









#### 9- STANDARDS









### 10- SAMPLES









### 11- DOCUMENTATION









## 12- «OOS», CAPA & CC









# 13- EQUIPMENTS VALIDATION









# 14- METHODS VALIDATION













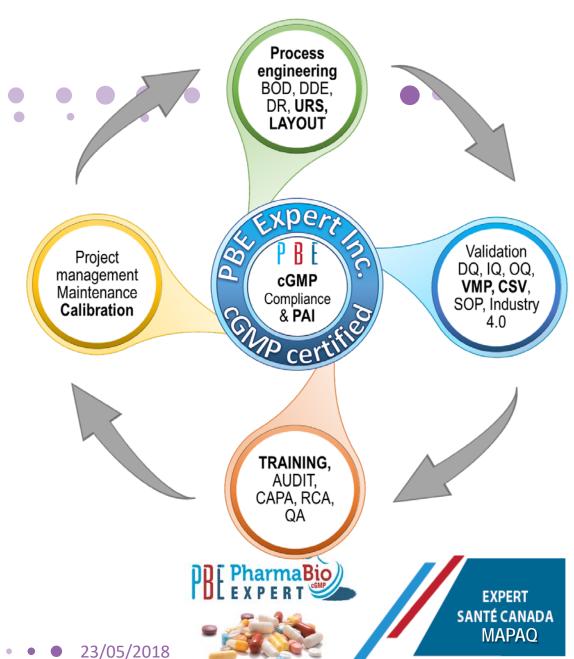




### 16- CONCLUSION











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