



# ***CHOLESTEROL REFERENCE METHOD LABORATORY NETWORK (CRMLN)***

## **Member Certification Status from January 2020 challenge and forward**

**Date Updated: August 2024**

The Cholesterol Reference Method Laboratory Network (CRMLN) is a network of highly specialized laboratories that work directly with manufacturers and laboratories to assess analytical accuracy and precision of blood lipid assays. CRMLN members operate reference measurement procedures (RMPs) for total cholesterol (TC), high-density lipoprotein cholesterol (HDL-C), low-density lipoprotein cholesterol (LDL-C), and/or total glycerides (TG). Each table shows the certification status of the CRMLN member since January 2020. Members who did not participate or enroll in the certification survey for a specific analyte will be reflected as (--). CRMLN RMPs are evaluated twice a year. To be certified, each method shows traceability to the CDC Lipids Reference Laboratory based on the performance criteria listed below.

### **Analytical Performance Criteria for Reference Measurement Procedures (RMPs)**

TC: Mean Bias  $\pm 1.0\%$ , Mean CV  $\leq 1.0\%$

TG: Maximum Sample Bias  $\pm 2.55\%$ , Maximum Survey Bias  $\pm 2.00\%$ , Range of Individual Sample Bias  $\leq 3.95\%$ , Range of Individual Measurement Bias  $\leq 6.96\%$

HDL-C: Mean Bias  $\pm 1.0$  mg/dL, Mean SD  $\leq 1.00$  mg/dL

LDL-C: Mean Bias  $\pm 2.0\%$ , Mean CV  $\leq 1.5\%$

Visit [https://www.cdc.gov/labstandards/crmln\\_members.html](https://www.cdc.gov/labstandards/crmln_members.html) for the complete list of CRMLN laboratories and services.

Participants meeting analytical performance requirements for two consecutive initial challenges are certified and considered to be official CRMLN members. Certified status is maintained unless there are two consecutive failures thereafter for each analyte. Successful participation in TC-AK is required to be certified for HDL-C and LDL-C.

**Erasmus MC**  
University Medical Center  
Rotterdam, The Netherlands

Survey	HDL Cholesterol by Designated Comparison Method	HDL Cholesterol by Ultracentrifugation	LDL Cholesterol by Abell-Kendall	Total Cholesterol by Abell-Kendall	Total Cholesterol by IDMS	Total Glycerides by IDMS	Total Glycerides (non-reference)
January 2020	Not Certified	Not Certified	<b>Certified</b>	Not Certified	--	--	--
July 2020	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	--	--	--
January 2021	<b>Certified</b>	<b>Certified</b>	Not Certified	<b>Certified</b>	--	--	--
July 2021	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	--	--	--
January 2022	Not Certified	<b>Certified</b>	Not Certified	<b>Certified</b>	--	--	--
July 2022	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	--	--	--
January 2023	Not Certified	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	--	--	--
July 2023	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	--	--	--
January 2024	<b>Certified</b>	<b>Certified</b>	Not Certified	Not Certified	--	--	--

**National Cerebral and Cardiovascular Center**  
Department of Research Promotion Lipid Reference Laboratory  
Suita Osaka, Japan

Survey	HDL Cholesterol by Designated Comparison Method	HDL Cholesterol by Ultracentrifugation	LDL Cholesterol by Abell-Kendall	Total Cholesterol by Abell-Kendall	Total Cholesterol by IDMS	Total Glycerides by IDMS	Total Glycerides (non-reference)
January 2020	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	--
July 2020	<b>Certified</b>	<b>Certified</b>	Not Certified	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	--
January 2021	<b>Certified</b>	<b>Certified</b>	Not Certified	<b>Certified</b>	<b>Certified</b>	Not Certified	--
July 2021	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	--
January 2022	<b>Certified</b>	<b>Certified</b>	Not Certified	<b>Certified</b>	<b>Certified</b>	Not Certified	--
July 2022	Not Certified	<b>Certified</b>	Not Certified	<b>Certified</b>	Not Certified	Not Certified	--
October 2022	--	--	<b>Certified</b>	--	--	--	--
January 2023	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	Not Certified	--
July 2023	Not Certified	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	<b>Certified</b>	--
January 2024	<b>Certified</b>	Not Certified	Not Certified	<b>Certified</b>	<b>Certified</b>	Not Certified	--

**CEQAL Inc.**  
Vancouver, Canada

Survey	HDL Cholesterol by Designated Comparison Method	HDL Cholesterol by Ultracentrifugation	LDL Cholesterol by Abell-Kendall	Total Cholesterol by Abell-Kendall	Total Cholesterol by IDMS	Total Glycerides by IDMS	Total Glycerides (non-reference)
January 2020	Certified	Certified	Certified	Certified	--	--	Certified
July 2020	Certified	Certified	Certified	Certified	--	--	Certified
January 2021	Certified	Certified	Certified	Certified	--	--	Certified
July 2021	Certified	Certified	Certified	Certified	--	--	Certified
January 2022	Not Certified	Certified	Not Certified	Certified	--	--	Not Certified
July 2022	Certified	Certified	Certified	Certified	--	--	--
January 2023	Certified	Certified	Not Certified	Certified	--	--	Not Certified
July 2023	Not Certified	Certified	Certified	Certified	--	--	Not Certified
January 2024	Not Certified	Certified	Not Certified	Certified	--	--	Not Certified
June 2024	Certified	--	--	--	--	--	--

**Fundacion Bioquimica Argentina**  
Laboratorio de Referencia y Estandarizacion en Bioquimica Clinica (LARESBC)  
La Plata, Argentina

Survey	HDL Cholesterol by Designated Comparison Method	HDL Cholesterol by Ultracentrifugation	LDL Cholesterol by Abell-Kendall	Total Cholesterol by Abell-Kendall	Total Cholesterol by IDMS	Total Glycerides by IDMS	Total Glycerides (non-reference)
January 2020	Not Certified	--	--	Not Certified	--	--	--
July 2020	Not Certified	--	--	Certified	--	--	--
January 2021	Not Certified	--	--	Certified	--	--	--
July 2021	Not Certified	--	--	Certified	--	--	--
January 2022	Not Certified	--	--	Not Certified	--	--	--
July 2022	Not Certified	--	--	Not Certified	--	--	--
January 2023	Not Certified	--	--	Not Certified	--	--	--
July 2023	Certified	--	--	Certified	--	--	--
January 2024	--	--	--	Not Certified	--	--	--



**Laboratoire national de metrologie et d'essais (LNE)**

Chemistry and Biology Division

Paris, France

Survey	HDL Cholesterol by Designated Comparison Method	HDL Cholesterol by Ultracentrifugation	LDL Cholesterol by Abell-Kendall	Total Cholesterol by Abell-Kendall	Total Cholesterol by IDMS	Total Glycerides by IDMS	Total Glycerides (non-reference)
January 2020	--	--	--	--	Certified	--	--
July 2020	--	--	--	--	Certified	--	--
January 2021	--	--	--	--	Certified	--	--
July 2021	--	--	--	--	Not Certified	--	--
January 2022	--	--	--	--	Certified	--	--
July 2022	--	--	--	--	Certified	--	--
January 2023	--	--	--	--	Certified	--	--
July 2023	--	--	--	--	Certified	--	--
January 2024	--	--	--	--	Certified	--	--

**Medpace Reference Laboratories**

Cincinnati, USA

Survey	HDL Cholesterol by Designated Comparison Method	HDL Cholesterol by Ultracentrifugation	LDL Cholesterol by Abell-Kendall	Total Cholesterol by Abell-Kendall	Total Cholesterol by IDMS	Total Glycerides by IDMS	Total Glycerides (non-reference)
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January 2022	Not Certified	Certified	Certified	Certified	--	--	--
July 2022	Certified	Not Certified	Certified	Certified	--	--	--
January 2023	Certified	Not Certified	Certified	Certified	--	--	--
July 2023	Not Certified	Certified	Not Certified	Not Certified	--	--	--
January 2024	Not Certified	Certified	Certified	Certified	--	--	--