Hellenic Accreditation System

Annex G1/7 to the Certificate No.**1065**-2

SCOPE of ACCREDITATION

of the

Clinical Laboratory

of

“BIOPATH INNOVATIONS S.A.”

Materials/Products tested	Types of test/Properties measured	Applied methods/Techniques used
Molecular Genetics		
Paraffin Embedded Tissue, Cytology Specimens	Detection of somatic mutations within: 1. exons 18/19/20/21 of the *EGFR* gene 2. codons 12/13 (exon 2) and 61 (exon 3) of the *KRAS* gene 3. exon 15 of the *BRAF* gene (p.V600) 4. exons 2/5/8/10/21 of the *PIK3CA* gene	Real-time PCR Manufacturer's methods: 1. cobas® *EGFR* Mutation Test v2 (CE-IVD, Roche Molecular Diagnostics, F.362-2.1/v4 eff. date 20/12/21). 2. cobas® *KRAS* Mutation Test (CE-IVD, Roche Molecular Diagnostics, F.362-2.3/v4 eff. date 20/12/21). 3. cobas® *BRAF* V600 Mutation Test (CE-IVD, Roche Molecular Diagnostics, F.362-2.5/v4 eff. date 20/12/21). 4. cobas® *PIK3CA* Mutation Test (CE-IVD, Roche Molecular Diagnostics, F.362-68/v2 eff. date 20/12/21). Real-time PCR on COBAS z480™ Analyzer* (#0035, Roche Molecular Diagnostics).
Paraffin Embedded Tissue, Cytology Specimens	Detection of somatic mutations within: 5. exons 18/19/20/21 of the *EGFR* gene	Next Generation Sequencing (NGS) with Ion Torrent™ technology (ThermoFisher Scientific) In house methods: 5. F.362-2.2/v5 eff. date 20/12/21 6. F.362-2.4/v4 eff. date 20/12/21 7. F.362-2.6/v4 eff. date 20/12/21

Materials/Products tested	Types of test/Properties measured	Applied methods/Techniques used
	6. exons 2/3/4 of the *KRAS* gene 7. exons 2/3/4 of the *NRAS* gene 8. exons 11/15 of the *BRAF* gene 9. exons 2/5/8/10/14/21 of the *PIK3CA* gene	8. F.362-2.7/v4 eff. date 20/12/21 9. F.362-2.59/v2 eff. date 20/12/21 Target amplification with Ion AmpliSeq™ amplicons (Oncomine™, ThermoFisher Scientific), library preparation with Ion AmpliSeq™ Library kit 2.0 (ThermoFisher Scientific), templating with Ion Torrent One Touch™ (2* #0028/ES* #0029, ThermoFisher Scientific) or Ion Torrent Ion Chef™*(#0276, ThermoFisher Scientific), sequencing with Ion Torrent PGM™* (#0181 or #0227, ThermoFisher Scientific) and analysis with Ion Reporter software (ThermoFisher Scientific).
Paraffin Embedded Tissue, Cytology Specimens	10. Detection of Microsatellite Instability (MSI)	Next Generation Sequencing (NGS) with Ion Torrent™ technology (ThermoFisher Scientific) and in-house MiSuIte™ bioinformatics software. In house method (F.362-2.67/v2 eff. date 20/12/21). Target amplification with custom Ion AmpliSeq™ amplicons (ThermoFisher Scientific), library preparation with Ion AmpliSeq™ Library kit 2.0 (ThermoFisher Scientific), templating with Ion Torrent One Touch™ (2 *#0028/ES* #0029, ThermoFisher Scientific) or Ion Torrent Ion Chef™*(#0276, ThermoFisher Scientific), sequencing with Ion Torrent PGM™* (#0181 or #0227, ThermoFisher Scientific) and analysis with in-house MiSuIte™ bioinformatics software (#0406, BioMarker Solutions).
Paraffin Embedded Tissue, Cytology Specimens	11/12. Detection of somatic single-nucleotide variations (SNVs) and small insertions or deletions (InDels) within the coding regions, splice sites and flanking intronic regions of the *BRCA1* and *BRCA2* genes	Next Generation Sequencing (NGS) with Ion Torrent™ technology (ThermoFisher Scientific) 11. In house method (F.362-2.24/v2 eff. date 20/12/21). Target amplification with Ion AmpliSeq™ BRCA1 & BRCA2 Panel (ThermoFisher Scientific). 12. In house method (F.362-2.65/v2 eff. date 20/12/21). Target amplification with custom Ion AmpliSeq™ amplicons (ThermoFisher Scientific). Library preparation with Ion AmpliSeq™ Library kit 2.0 (ThermoFisher Scientific), templating with Ion Torrent One Touch™ (2* #0028/ES* #0029, ThermoFisher Scientific) or Ion Torrent Ion

Materials/Products tested	Types of test/Properties measured	Applied methods/Techniques used
		Chef™*(#0276, ThermoFisher Scientific), sequencing with Ion Torrent PGM™* (#0181 or #0227, ThermoFisher Scientific) and analysis with Ion Reporter software (ThermoFisher Scientific).
Paraffin Embedded Tissue, Cytology Specimens	Detection of somatic mutations within: 13. exons 18/19/20/21 of the *EGFR* gene 14. codons 12/13 (exon 2), 59/61 (exon 3) and 117/146 (exon 4) of the *NRAS* gene 15. exon 15 of the *BRAF* gene (p.V600)	Real-time PCR Manufacturer's Methods: 13. Idylla™ *EGFR* Mutation Test (CE-IVD, BioCartis, F.362-2.42/v2 eff. date 20/12/21). 14/15. Idylla™ *NRAS* /*BRAF* Mutation Test (CE-IVD, BioCartis, (F.362-2.41/v2 eff. date 20/12/21). Real-time PCR on the Idylla™ device* (#0155, #0214, #0215 or #0216, BioCartis).
	16. Detection of Microsatellite Instability (MSI)	Real-time PCR 16. Manufacturer's Method Idylla™ MSI Test (CE-IVD, BioCartis, F.362-2.63/v2 eff. date 20/12/21). Real-time PCR on the Idylla™ device* (#0155, #0214, #0215 or #0216, BioCartis).
Peripheral blood (cell-free DNA collection tubes, EDTA), Plasma Liquid Biopsies	17. Detection of somatic mutations within exons 18/19/20/21 of the *EGFR* gene	Real-time PCR 17. Manufacturer's method cobas® *EGFR* Mutation Test v2 kit (CE-IVD, Roche Molecular Diagnostics, F.362-2.21/v2 eff. date 20/12/21). Real-time PCR on the COBAS z480™ Analyzer* (#0035, Roche Molecular Diagnostics).
Peripheral blood (cell-free DNA collection tubes, EDTA), Plasma Liquid Biopsies	Detection of somatic mutations within: 18. exons 18/19/20/21 of the *EGFR* gene	Next Generation Sequencing (NGS) with Ion Torrent™ technology (ThermoFisher Scientific) In house methods: 18. (F.362-2.22/v5 eff. date 20/12/21). Target amplification with custom Ion AmpliSeq™ amplicons (ThermoFisher Scientific). Library preparation with Ion AmpliSeq™ Library kit 2.0 (ThermoFisher Scientific), templating with Ion Torrent One Touch™ (2* #0028/ES* #0029, ThermoFisher Scientific) or Ion Torrent Ion Chef™*(#0276, ThermoFisher Scientific), sequencing with Ion Torrent PGM™* (#0181 or #0227, ThermoFisher Scientific) and analysis with Ion Reporter

Materials/Products tested	Types of test/Properties measured	Applied methods/Techniques used
		software (ThermoFisher Scientific).
Peripheral blood (EDTA)	20/21. Detection of germline single-nucleotide variations (SNVs) and small insertions or deletions (InDels) within the coding regions, splice sites and flanking intronic regions of the *BRCA1* and *BRCA2* genes	Next Generation Sequencing (NGS) with Ion Torrent™ technology (ThermoFisher Scientific) 20. In house method (F.362-2.23/v3 eff. date 20/12/21). Target amplification with Ion AmpliSeq™ BRCA1 & BRCA2 Panel (ThermoFisher Scientific). 21. In house method (F.362-2.64/v2 eff. date 20/12/21). Target amplification with custom Ion AmpliSeq™ amplicons (ThermoFisher Scientific). Library preparation with Ion AmpliSeq™ Library kit 2.0 (ThermoFisher Scientific), templating with Ion Torrent One Touch™ (2* #0028/ES* #0029, ThermoFisher Scientific) or Ion Torrent Ion Chef™*(#0276, ThermoFisher Scientific), sequencing with Ion Torrent PGM™* (#0181 or #0227, ThermoFisher Scientific) and analysis with Ion Reporter software (ThermoFisher Scientific).
Peripheral blood (EDTA)	22. Detection of germline large deletions / insertions in the coding regions of the *BRCA1* gene	Next Generation Sequencing (NGS) with Ion Torrent™ technology (ThermoFisher Scientific), QRS™ calibrators and in-house CNVSUITE™ bioinformatics software. 22. In house method (F.362-2.66/v2 eff. date 20/12/21). Target amplification with custom Ion AmpliSeq™ amplicons (ThermoFisher Scientific) and custom QRS™ calibrators, library preparation with Ion AmpliSeq™ Library kit 2.0 (ThermoFisher Scientific), templating with Ion Torrent One Touch™ (2* #0028/ES* #0029, ThermoFisher Scientific) or Ion Torrent Ion Chef™*(#0276, ThermoFisher Scientific), sequencing with Ion Torrent PGM™* (#0181 or #0227, ThermoFisher Scientific) and analysis with in-house CNVSUITE™ bioinformatics software (BioMarker Solutions, #0407).
Pathology - Immunohistochemistry		
Paraffin Embedded Tissue, Cytology Specimens	Immunohistochemical detection of protein expression: 23: ALK (clone D5F3) 24: ALK CST 25: PD-L1 (clone SP263)	Immunohistochemistry (IHC) 23. Manufacturer's Method Ventana® ALK (D5F3) assay (CE-IVD, Roche Molecular Diagnostics, F.362-2.30/v2 eff. date 20/12/21). 24. In house method using the anti-ALK CST antibody (F.362-2.62/v2 eff. date 20/12/21). 25. Manufacturer's Method Ventana® PD-L1

Materials/Products tested	Types of test/Properties measured	Applied methods/Techniques used
	26: PD-L1 (clone SP142)	(SP263) assay (CE-IVD, Roche Molecular Diagnostics, F.362-2.31/v2 eff. date 20/12/21). 26. Manufacturer's Method Ventana® PD-L1 (SP142) assay (CE-IVD, Roche Molecular Diagnostics, F.362-2.61/v2 eff. date 20/12/21). Staining performed on the BenchMark ULTRA™ Platform* (#0120, Roche Molecular Diagnostics).

** The use of the genetic analyzer's brand name refers to a specific analytical method and the corresponding experimental protocol*

Site of assessment: **Laboratory permanent premises: 50 Agiou Konstantinou Street, 15124, Maroussi, Athens, Greece.**
Approved signatures: **S. Murray, F. Gavresea, C. Gouedard., A. Delimitsou, I. Konstanta.**

This scope of Accreditation replaces the previous one dated 09.12.2020.
The Accreditation Certificate No. **1065**-2, to ELOT EN ISO 15189:2012, is valid until 30.10.2024.

Athens, February 28, 2022

Christos Nestoras
CEO of ESYD