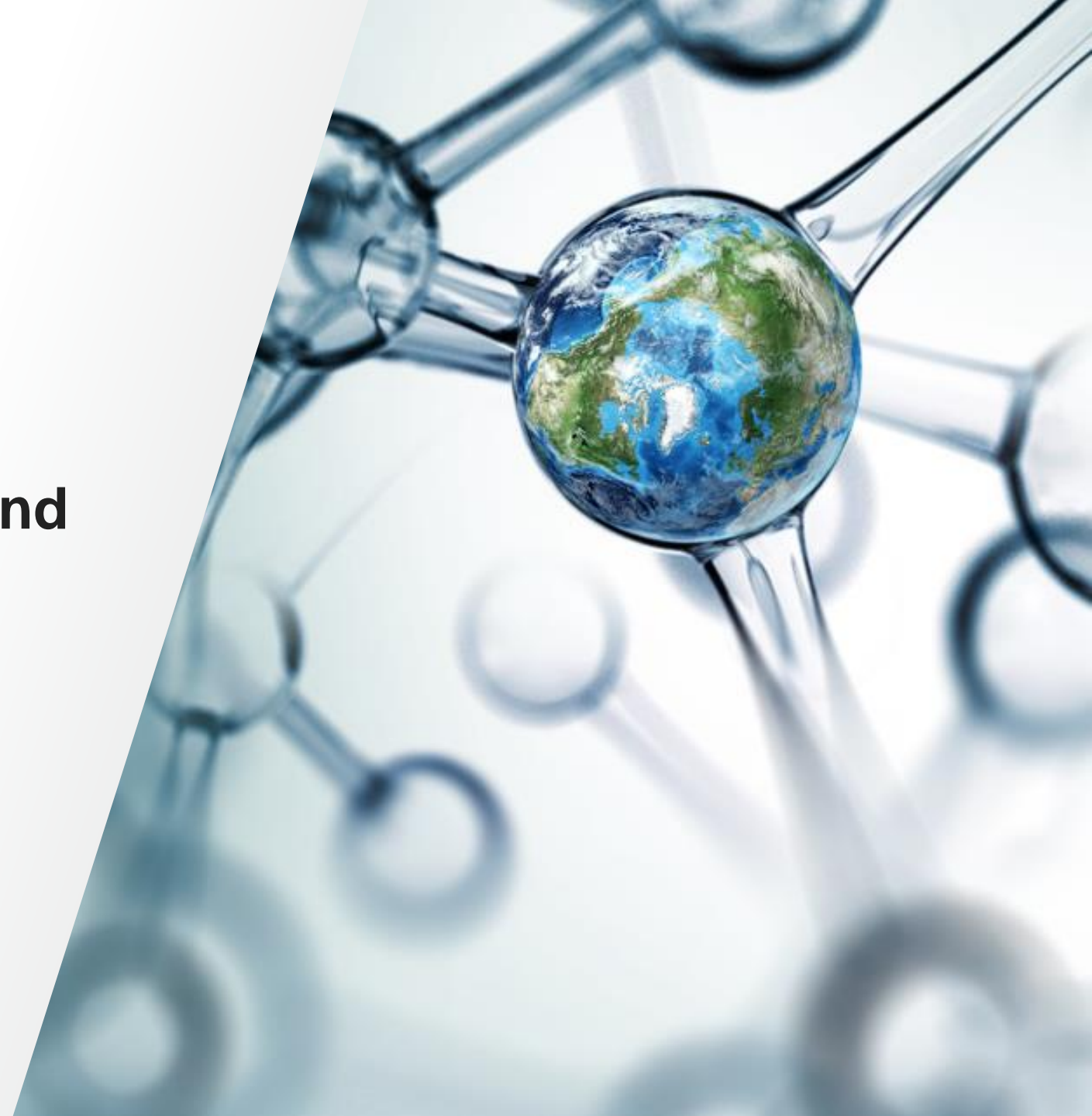


2020 Postgraduate Research and Innovation Symposium

UKZN

Suvina Bisnath
Neliswa Nhlabatsi
Raveshni Durgiah
Pholisiwe Mbona

 The world leader in serving science



We Take Pride in Our Mission



We enable our customers to make the world
healthier, cleaner and safer

Our Leading Scientific Products, Services and Workflow Solutions

ThermoFisher
SCIENTIFIC

The world leader in serving science

thermo
scientific

Analytical precision and
diagnostics excellence

applied
biosystems

Inspiring meaningful
genetic analysis

invitrogen

Accelerating discovery
research

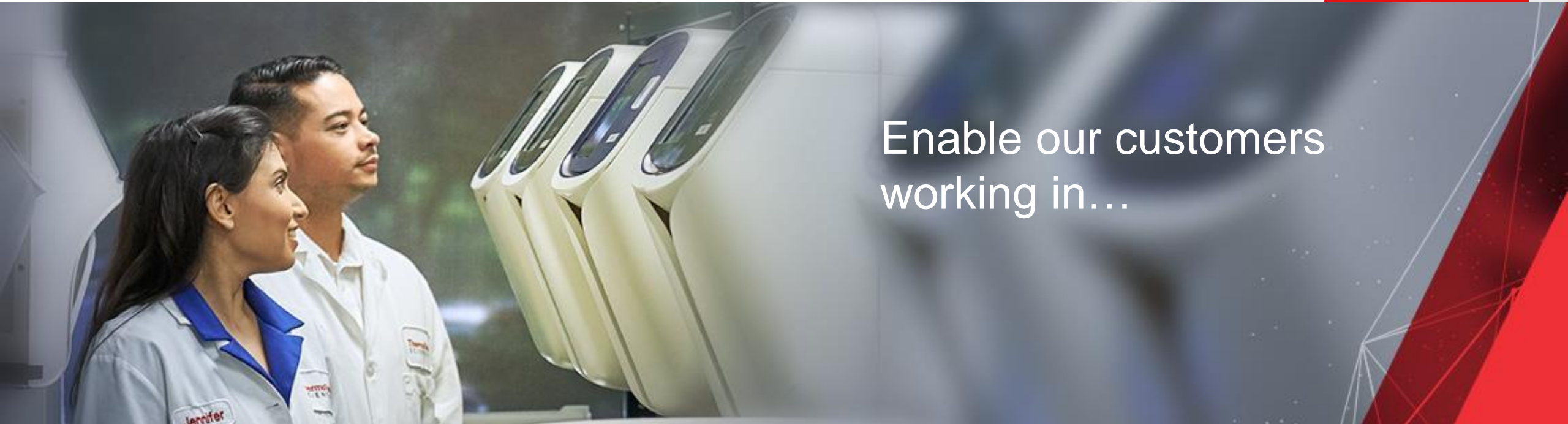
f **fisher**
scientific

One-stop access for
scientific products

unity
lab services

Instrument and
enterprise services

Unique Scale and Depth of Capabilities



Enable our customers
working in...

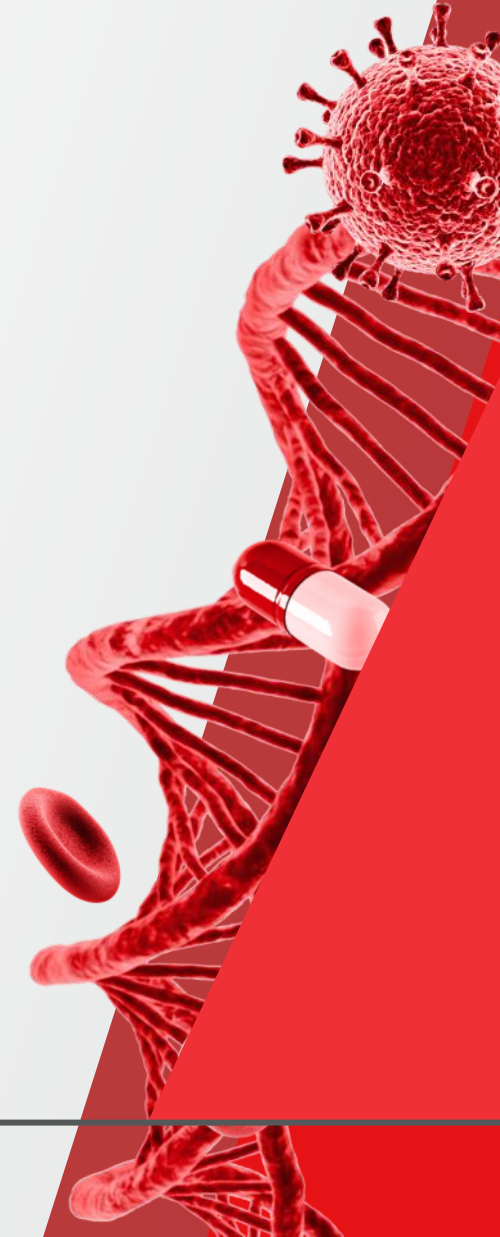
Healthcare	Life Sciences	Applied Markets	Pharma and Biotech
<ul style="list-style-type: none">• Clinical Diagnostics• Immunodiagnostics• Microbiology• Transplant Diagnostics• Healthcare Supplies Channel	<ul style="list-style-type: none">• Mass Spectrometry• Electron Microscopy• Molecular & Cellular Biology• Genetic Sciences• Clinical & Next-Generation Sequencing	<ul style="list-style-type: none">• Chemical Analysis• Chromatography• Electron Microscopy• Next-Generation Sequencing	<ul style="list-style-type: none">• Bioproduction• API• Formulation• Clinical Trials• Manufacturing• Global Logistics, Labeling

Laboratory Equipment, Chemicals and Scientific Supplies Channel

Enterprise-Wide Services and Digital Science Solutions

Life Sciences Solutions (LSG)

 The world leader in serving science



Life Sciences Solutions You Can Depend On



Customized or out-of-the-box



State-of-the-art, flexible tools



Broad range of chemicals, solvents, and reagents



Innovative, holistic workforce solutions and services

Building a path from research to medical diagnostics and applied sciences

thermo
scientific

applied
biosystems

invitrogen

gibco

iontorrent

For Research Use Only. Not for use in diagnostic procedures.

Providing Solutions for Myriad Needs

Biosciences



- Cell biology
- Molecular biology
- Protein and cell analysis
- Sample prep
- Synthetic biology

Genetic sciences



- Platforms
 - Real-time PCR (qPCR)
 - Capillary electrophoresis
- Microarray
- Content
- Basic and translational research
 - Human identification
 - Clinical
 - Agrigenomics
 - Reproductive health
 - Animal health

Clinical research sequencing



- Targeted sequencing
- Oncology
- Companion diagnostics

BioProduction



- Cell culture and cell therapy
- Single-use technologies
- Purification and pharma analytics
- Production chemicals
- Measurement control and equipment

Laboratory products



- Controlled temperature technologies
- Growth, protection and separation
- Water and lab products
- Laboratory plastics essentials
- Nalgene consumer products

Laboratory chemicals



- Fine chemical products
- Laboratory analytical reagents

Our People within LSG

Suvina Bisnath
Account Manager
Suvina.bisnath@thermofisher.com



Pholisiwe Mbona
Account Manager
Pholisiwe.mbona@thermofisher.com

Neliswa Nhlabatsi
Technical Sales Specialist
Neliswa.nhlabatsi@thermofisher.com



Raveshni Durgiah
Technical Sales Specialist
Raveshni.durgiah@thermofisher.com

Jashan Gokal
Field Application Specialist
Jashan.gokal@thermofisher.com



Biosciences



Biosciences | Workflow Solutions Advanced Innovations



Cell analysis

Among the **most peer-referenced** products for fluorescent labeling and detection in the life science industry



Cell biology

Trusted Gibco™ cell culture media and protein expression reagents; **product advancements** to support cells as models, factories and therapy



Molecular biology

Innovative thermal cyclers paired with the **broadest range** of reagents and consumables, with numerous citations in PubMed database



Protein biology

Complete solutions for protein characterization, purification and detection to minimize **touchpoints and time**, including antibodies tested for multiple applications

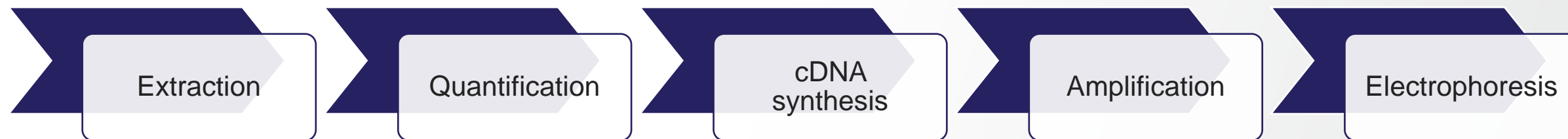


Synthetic biology

Advanced innovations, award-winning and unique product offerings and custom services backed by an experienced team of scientists

Endpoint PCR Workflow

Trusted solutions for your entire nucleic acid detection and analysis workflow



Everything you need for optimal PCR results

Learn more about the Applied Biosystems™ and Invitrogen™ collection of high-quality instruments and reagents for the PCR workflow at thermofisher.com/pcrworkflow



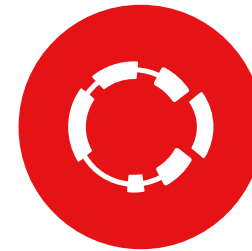
**Reverse
transcription**



PCR



**Nucleic acid
electrophoresis**



Cloning



Education

Explore the Western Workflow Portfolio

Separate

Transfer

Detect



Offering a complete product portfolio for your western blotting needs

Invitrogen EVOS Imaging Systems—Clear, Hands-Free Imaging

Invitrogen™ EVOS™ M5000 and M7000 systems:

- Semi- and fully automated systems, respectively
- Fixed- and live-cell brightfield and fluorescence imaging
- Range of many selectable wavelengths

Invitrogen™ EVOS™ FLoid™ system:

- Fixed objective, manual microscope
- 3 fluorescence channels in addition to brightfield

Invitrogen™ EVOS™ XL Core system:

- Basic, manual brightfield microscope for general cell culture applications.

These systems all provide:

- High-quality imaging data on screen (no eye pieces)
- Minimal to no handling with automated systems
- Fits in common cell or tissue culture hoods
- Compatibility with Invitrogen™ Celleste™ Software to capture, save, process, measure, and analyze images



EVOS M7000



EVOS M5000



EVOS FLoid



EVOS XL Core

Genetic Sciences



Genetic Sciences | Overview



Technologies

Real-time PCR,
Sanger sequencing,
digital PCR and
microarrays



Research

Biomarker discovery and
analysis, translational and clinical
research, pathogen detection and
agrigenomics



Applied

Forensics, animal health,
food security and
molecular diagnostics
development

Quantitative PCR

Sanger
sequencing

Human identification

Microarray

AgriGenomics



Next-generation sequencing for multibiomarker, multigene targeted sequencing, transcriptome and exome analysis



Microarrays for genotyping, pharmacogenomics, transcriptome analysis, copy number analysis and reproductive genomics



Capillary electrophoresis for low-cost, targeted variant analysis



Real-time PCR systems for variant ID, gene expression and analysis of large numbers of samples



Digital PCR for fast and simple rare allele detection and absolute target quantification

Discover

Characterize

Analyze

The portfolio can support the full breadth of studies to answer your questions

For Research Use Only. Not for use in diagnostic procedures.

Explore The PCR workflow



Plastics and
optical covers



RNA/DNA
isolation products



Invitrogen™ SuperScript™
VILO™ reverse transcriptases



qPCR instruments



Primers and
TaqMan Assays

For Research Use Only. Not for use in diagnostic procedures.

Next-Generation Sequencing



Ion GeneStudio S5 Systems Are Scalable and Flexible






Plant and animal
GBS
(amplicon)

RNA-Seq

Ion AmpliSeq™
technology for
any genome

Viral and
bacterial typing

Metagenomics

	Reads	Markers	Samples	Read length
 Ion 520™ Chip	3–5M	Up to 125	Up to 400	Up to 400 bp
 Ion 530™ Chip	15–20M	250–500	400–800	Up to 400 bp
 Ion 540™ Chip	60–80M	800–5,000	160–1,000	Up to 200 bp
 Ion 550 Chip	100–130M	850–5,000	260–1,536	Up to 200 bp

For more information, talk to your
sales representative or
visit

[https://www.thermofisher.com/za/
en/home/life-science.html](https://www.thermofisher.com/za/en/home/life-science.html)



Thank you

Any Questions?

