

Agilent Webinar

Inferring the tumor type of cancerous tissues in pediatric oncology using methylation profiling of cfDNA

September 9th, 2020



Webinar Details

Date: Wednesday, September 9th, 2020

Time: 8:00 a.m. PDT
10:00 a.m. CDT
11:00 a.m. EDT
5:00 p.m. CET

Join Agilent for a webinar about cancerous tissue profiling

In this webinar you will learn:

- Why cell-free DNA (cfDNA) quality control is important for downstream processes
- How to assess the quality of cfDNA with a Femto Pulse system
- How to classify cfDNA samples using reduced representation bisulfite sequencing

Who should attend:

- Genomics researchers
- Sequencing Lab Managers/Technicians
- Molecular Biologists
- Cancer Researchers
- Clinicians

Agenda

10 mins. – Agilent Femto Pulse system overview

*Steve Siembieda, MS, MBA
Product Marketing Manager, Agilent Technologies, Inc.*

40 mins. – Inferring the tumor type of cancerous tissues in pediatric oncology using methylation profiling of cfDNA

*Ruben Van Paemel, PhD Fellow
Research Foundation Flanders (FWO), Ghent University*

*Andries De Koker, PhD
Postdoctoral Scientist, VIB-UGent Center for Medical Biotechnology*

10 mins. – Q&A



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Speakers



Ruben Van Paemel, PhD Fellow - Research Foundation Flanders (FWO), Ghent University

After obtaining a medical degree in 2017, Ruben started his PhD fellowship, as part of a residency in pediatrics. This work which is funded by the Research Foundation Flanders allows him to focus on pediatric oncology at Ghent University. Based on previous research into the genetic predisposition of pediatric cancer, where whole genome sequencing data was analyzed, Ruben became interested in how bioinformatics applies to pediatric oncology. Currently he is looking into the value of liquid biopsies for diagnosis and follow-up of pediatric malignancies.



Andries De Koker, Postdoctoral Scientist, VIB-UGent Center for Medical Biotechnology

Andries De Koker is a Postdoctoral Scientist at the Flemish Institute of Biotechnology (VIB). After attaining his master's degree, in 2013, on optimizing a mammalian protein production system, Andries switched his attention to researching different next-generation sequencing sample preparation workflows. This work allowed him to adapt an existing reduced representation bisulfite sequencing (RRBS) method and make it applicable for use with circulating cell-free DNA (cfDNA). The result of this work was a novel cf-RRBS method. Sequencing with cf-RRBS allows sensitive mutation detection and prediction of tissue origin. Andries has conducted this work in collaboration with Ghent University's Center for Medical Genetics (CMGG). The goal of the institutions, VIB and CMGG, is to develop new and innovative molecular tools and technologies for challenging human health problems.



Steve Siembieda, MS, MBA, Agilent

Steve Siembieda, MS, MBA is the Product Marketing Manager for the Biosystems and Solutions division at Agilent. Prior to this role, Steve worked for Advanced Analytical and had a primary focus on supporting sales and marketing efforts for its key instruments, the Fragment Analyzer and Femto Pulse by establishing and defining commercialization plans and advancing sales of these instruments throughout a worldwide distribution network. Mr. Siembieda attained his BA in Biology from Saint Mary's University (Winona, MN) and holds graduate degrees in Molecular Biology (MS, University of North Dakota) and Business Administration (MBA, Drake University).



Agilent Femto Pulse system: Confirm quality 10 times faster

The Agilent Femto Pulse system measures both quality and purity. It uses capillary electrophoresis to accurately show the prestorage size distribution of genomic DNA.

- **High-sensitivity detection.** Use less sample for QC, which means more sample for downstream applications.
- **Pulsed-field separations.** Accurate, reliable genomic DNA sizing produces better data for better decisions.
- **Streamlined workflow.** Minimize setup time, automate runs, and collect data digitally.

Best of all you can obtain your QC results 10 times faster than PFGE.

Learn more about the Agilent automated electrophoresis portfolio at:

www.agilent.com/en/product/automated-electrophoresis

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