

Radboud universitair medisch centrum

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10 July 2017Our reference
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Subject

**Invitation market consultation
Digital Polymerase Chain Reaction system**

KvK 41055629/4

Introduction

The Radboudumc Nijmegen intends to purchase a digital Polymerase Chain Reaction (dPCR) system. Therefore, any party which is able to deliver such system for the purposes described below is invited to contact the Radboudumc Nijmegen to present the costs and (technical) possibilities of their dPCR system.

Motivation

The instrument will be placed at the Laboratory of Tumor Genetics in the Human Genetics department of the Radboudumc Nijmegen, where sequencing of tumor derived DNA is routinely performed to detect (clinically relevant) somatic variants. However, to detect rare somatic variants (Variant Allele Frequency (VAF) <1%) in tumor DNA derived from plasma (so called liquid biopsies) and small (formalin fixed, paraffin embedded) tissue samples, a high sensitive method is required. Currently applied techniques are limited regarding their sensitivity ($\geq 3\%$ VAF) or require relatively large amounts of input material (≥ 20 ng DNA). Therefore, we are looking for a dPCR system which can be applied to detect low frequent variant alleles (VAF <0.1%) and can be used on low amounts of input DNA (<10ng). In addition, assays to detect somatic mutations should be commercially available or easy to design/implement and, ideally, this system could also be used to perform haplotyping analyses. The platform will be used in a clinical setting and therefore should have a high degree of accuracy.

Background

Since at least 20 assays are expected to be performed on a weekly basis, running of these highly sensitive assays should be simple (i.e., not labor-intensive) as well as affordable.

Specification

The Radboudumc Nijmegen is looking for a new dPCR system to enable the sensitive and quantitative detection of rare somatic variants in (limited amounts of) DNA. Based on the heterogeneous nature of these somatic variants, the system should be fast, flexible and reliable (i.e., does not require extensive validation runs/experiments per novel assay and minimal data variability). In addition, software for data interpretation should be available and easy to use for any technician in the lab. The dPCR system will be placed in a general pre-lab on a regular bench (i.e., benchtop sequencer). Semi-automated assay preparation is not mandatory, but will be considered a plus. The system needs to be able to connect to a LIMS, thus allowing automation of data handling. A quotation of the estimated costs (both system and reagents) is requested to determine if these match with the available budget.

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Sign up

If your company is able to provide a dPCR system which fulfills our requirement, we kindly invite you to contact the Radboudumc Nijmegen with the abovementioned information. Please contact the Radboudumc Nijmegen before July 19th 2017 by TenderNed. Subsequently, market consultation interviews will be scheduled on July 26th 2017 at the Radboudumc Nijmegen.

Procedure

The consultation interviews are scheduled for Wednesday morning July 26th, 2017. If you have any questions about the procedure, please contact us by TenderNed.

After finishing the consultation interviews, the Radboudumc will decide whether to continue with the next step in the procurement procedure.

Time schedule

June 10 th , 2017	Publication on TenderNed.
July 24 th , 2017 / 12:00 pm	Closing registration.
July 26 th , 2017	Consultation interviews with interested suppliers.