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On the cover this month: ONE MILLION. That's a large number by any count. People want to be millionaires. Writers want to sell a million books. Musicians want to sell a million records. YouTube users want to have a million views. This month, *Clinical Chemistry* becomes a member of the "one million club." *Clinical Chemistry* was one of the first journals to use podcasts to amplify the offerings found in the print version, and our highly successful podcasts have now been downloaded more than one million times. In this issue, Robert Rej provides readers with a history of podcasts and how *Clinical Chemistry* has adopted this electronic form of communication.

T2 Magnetic Resonance: A Diagnostic Platform for Studying Integrated Hemostasis in Whole Blood—Proof of Concept
By Lynell R. Skewis, et al.

The authors of this study developed a new diagnostic platform that uses T2 relaxation measurements of water molecules to rapidly measure clot formation and lysis in small volumes of blood. They demonstrate that multiplexed results of existing and new hemostasis parameters can be obtained with use of this approach. Their method, termed T2MR, provides diagnostic results from 0.04 ml of blood within 15 minutes with a true "mix-and-read" assay format. This proof-of-concept application of T2MR may enable new research and clinical applications for the identification of new biomarkers and therapeutic targets and provide a means for rapid and sensitive identification of patients at risk for thrombosis or bleeding.

Validation of a Real-Time PCR–Based Qualitative Assay for the Detection of Methylated *SEPT9* DNA in Human Plasma
By Nicholas T. Potter, et al.

This report describes the analytical and clinical validation of Epi proColon, a noninvasive molecular test under premarket approval review by the FDA, designed for colorectal cancer screening by use of methylated cell-free plasma DNA from the Septin9 gene. The study is topical and relevant because it presents the first circulating cell-free DNA test for cancer developed and made into a kit for routine use in CLIA-certified molecular laboratories. The study results suggest that blood-based testing has potential to improve the screening rates for colorectal cancer.

Microsatellite Instability Detection by Next Generation Sequencing
By Stephen J. Salipante, et al.

The authors of this paper describe a novel approach to microsatellite instability testing using next-generation sequencing data, which they term mSINGS. Conventional approaches involve PCR-based analysis of a small number of

carefully selected loci. This method takes advantage of the large scale of next-generation sequencing, which incidentally captures a number of microsatellite loci. Determination of microsatellite instability by mSINGS was found highly accurate when applied to 3 different targeted next-generation sequencing assays. These findings show the feasibility of microsatellite instability determination during genomic mutation profiling, without separate testing, and the potential advantages this approach offers over conventional approaches.

Influence of the Confounding Factors Age and Sex on MicroRNA Profiles from Peripheral Blood
By Benjamin Meder, et al.

microRNAs are important biomarkers that are currently being translated to clinical routine. The authors of this study found a substantial influence of patients' age and gender on blood-borne microRNA patterns. They implemented a web server that allows researchers worldwide to check arbitrary microRNA profiles from any human pathology in less than 5 minutes. This tool allows identification of marker candidates the results of which may depend on confounding variables rather than the considered disease.

Point-of-Care Vertical Flow Allergen Microarray Assay: Proof of Concept
By Thiruppathiraja Chinnasamy, et al.

The authors of this paper present an inexpensive and rapid novel paper-based, vertical-flow microarray assay tool with the capacity for simultaneous detection of at least 1480 molecular biomarkers. Their assay system was optimized and characterized using an allergy microarray model system and found to be sensitive, robust, and concordant with results from a gold standard validation assay. This assay system could find use in future point-of-care affinity proteomic applications, for instance, in the fields of autoimmunity, allergy, infection, or cancer diagnostics.

Practical Immunoaffinity-Enrichment LC-MS for Measuring Protein Kinetics of Low-Abundance Proteins
By Michael E. Lassman, et al.

Previously, protein kinetics measurements have been performed on relatively highly abundant proteins. To support a clinical study designed to understand metabolism of low abundance proteins cholesterol esterase transfer protein and proprotein convertase subtilisin/kexin type 9, kinetics measurements were made for 39 volunteers at 2 different clinical visits. This first-of-its-kind assay combines a multiplexed immunoaffinity step in lieu of separate SDS-polyacrylamide gel electrophoresis gels to isolate proteins of interest prior to liquid chromatography mass spectrometry and isotope ratio measurements. The methodology is robust and was used to measure these 2 proteins in over 1400 samples in less than 3 weeks. This practical method can be applied to other previously unmeasurable proteins.

High-Sensitivity Troponin I and Amino-Terminal Pro–B-Type Natriuretic Peptide Predict Heart Failure and Mortality in the General Population
By Paul M. McKie, et al.

The authors of this paper assessed the prognostic utility of a high-sensitivity troponin assay both alone and in combination with N-terminal-pro-B-type natriuretic peptide for the development of heart failure and mortality. They studied a community-based cohort of 2042 participants with a median follow-up of 10.7 years for heart failure and 12.1 years for mortality. Baseline troponin concentration was independently predictive of both heart failure and mortality beyond conventional risk factors. These results have potential implications on efforts to prevent heart failure.