

# Tosoh Ink

News and Information from Tosoh Bioscience, Inc.

November 2020

#### 501RP+

#### Tosoh's latest Enhanced Result Reportability Software

With the growing demand for A1c testing, Tosoh recognizes the importance of providing workflow enhancements with minimum touch points on the analyzer. For laboratories requiring automation in result reportability, Tosoh's 501RP+ builds on the existing autoverification capabilities of the G8 analyzer enhancing the potentials of this small yet powerful analyzer. The 501RP+ is a great data management application software addition that creates workflow efficiencies from sample processing to sample result reporting. The software has the following key features that enables any laboratory looking to automate some of their daily activities:

- #1 Assists with Auto Verification: Users can continue to auto-verify results and use enhanced features for complex result flagging and customize the rules for flagging.
- #2 Go paperless! Laboratories no longer need to print their chromatograms, they are automatically saved in the software.
- #3 Reagent Management and Traceability: When the barcode is scanned on the A1c reagents, the lot number, expiration date, and date opened will automatically populate avoiding transcription errors and saving time. The user can perform analysis trending of A1c results. On-board stability tracking and expiry on reagents is available with 501RP+.
- #4 On-board Maintenance: The 501RP+ software provides for complete maintenance management.



#### **November is Diabetes Awareness Month!**

In this special edition of Tosoh Ink, we review the importance of A1c as a glycemic marker in monitoring diabetes. HbA1c also called A1c or Hemoglobin A1c came into recognition as a marker for clinical use in diabetes in the 1980's. Today it has become not only a marker that detects and quantitates



Tosoh: Your Partner in A1c testing

A1c but also aids in the diagnosis of A1c.

There are 2 landmark studies performed in the 80's that spanned over more than a decade to establish A1c as a long term marker for monitoring Diabetes:

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### The G8 HPLC Analyzer

#### Growing with your Testing Needs

The Tosoh G8 continues to be our flagship product in the US. With laboratory requirements to increase testing, the G8 290L (290 sample loading capacity) is a great add-on to the existing stand-alone G8. In addition, the G8 provides value in laboratories where the unit can be connected to a third-party vendor track line to automate the A1c testing needs.



#### Diabetes Awareness Month (continued from front)

(1) Diabetes Control and Complications Study -The DCCT was a multicenter undertaking designed to study the effects of an intensive diabetes treatment regimen on the progression of early vascular complications. Tosoh A1c Analyzers were used in this study that brought to attention the importance of A1c in monitoring diabetes.

(2) United Kingdom Prospective Diabetes Study -The UKPDS was also a multicenter study performed over 20 years. The study showed that there is a direct relationship between the risk of complications of diabetes and glycemia over time. It also showed that intensive blood glucose control reduces the risk of diabetic complications especially microvascular complications. Bringing the A1c level to acceptable levels was an important part of this study.

These 2 studies paved the way in recognizing the importance of maintaining HbA1c at a level that controls the progression of diabetes related complications such as nephropathy, microvascular complications and neuropathy. Tosoh is a pioneer in HbA1c and helped the diabetic community lay the foundation for A1c as an important marker in diabetes testing.

#### References:

1. Diabetes Control and Complications Trial (DCCT): Results of Feasibility Study. The DCCT Research Group Diabetes Care 1987 Jan; 10(1): 1-19. https://doi.org/10.2337/diacare.10.1.1

2. Implications of the United Kingdom Prospective Diabetes Study American Diabetes Association: Diabetes Care 2002 Jan; 25(suppl 1): s28-s32. https://doi.org/10.2337/diacare.25.2007. S28

#### Tosoh Bioscience, Inc.

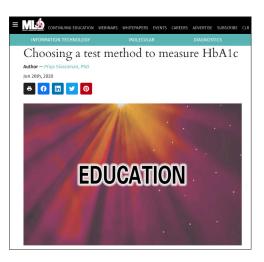


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# Article on HbA1c published in the June 2020 Edition of MLO

We invite you to read the Article in the Education Section in June 2020 edition of MLO that speaks about methods used in A1c testing and the advantages of using cation-exchange HPLC in A1c testing.

The article examines the various methods of measuring A1c. One of the key differentiators of cation exchange HPLC is the ability to not only provide



an accurate HbA1c results but also presumptively identify the most commonly occurring variant traits: HbS, HbC, HbE and HbD. In comparison, Boronate Affinity method and immunoassay do not provide variant information leaving the guesswork to the laboratorian. The key to differentiating amongst cation-exchange HPLC assays is the column packing material which plays a vital role amongst many other factors. Tosoh employs TSk non-porous gel packing material which is the key to an excellent separation of analytes. The unique feature in a Tosoh chromatogram is the clean separation between Stable A1c and Labile A1c. Another important consideration is how the A1c is result is calculated. Tosoh's calculation of the A1c result is simple with a direct measure of the area under the peak. The calculation is self-explanatory on a chromatogram; other methods apply a complex algorithm to the raw result providing a very limited understanding for the bases of arriving at the A1c result.

## **Upcoming Webinar!**

Tosoh Bioscience, Inc. is proud to announce a new customer webinar.

Title:

Advantages of Using ion-exchange HPLC for A1c Testing

Priya Siyaraman, Ph.D. Product Manager, Tosoh Bioscience, Inc.

Date and Time:

November 19 - 10AM PST November 20 - 10AM PST

Duration: 1 hour

We are able to provide one P.A.C.E.® continuing education credit for this program at no charge to our customers at the conclusion of the webinar.

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