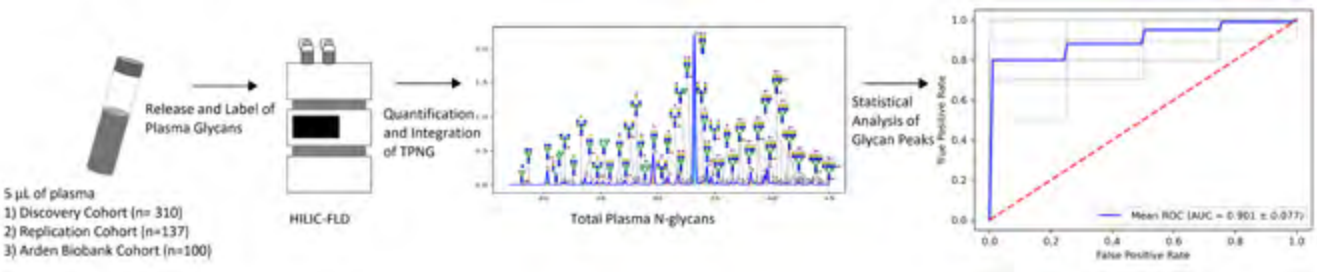
Ludger News

March/April 2026

Glycomic Markers Show Promise for Predicting COVID-19 Outcomes

We are pleased to announce the publication of ***"Total plasma N-glycomic patterns of COVID-19 disease"*** (**Elgood-Hunt** et al., Glycoconjugate Journal), funded by **Innovate UK** (69371, 2021) and delivered in collaboration with **Warwick Medical School**, **RCSI**, and **University College Dublin**.

This landmark study analysed over 500 plasma samples from COVID-19 patients across discovery, replication, and validation cohorts to map disease-related glycomic changes at the population scale. The research identified distinct **N-glycan signatures associated with disease severity, ICU admission, and mortality**.



Two glycan peaks showed particularly strong associations: peak 61 (A4G4S4F) was elevated in severe disease, and peak 29 (FA2G2S2) was reduced in severe disease.

These glycomic profiles demonstrated robust prognostic potential, achieving an AUC of 0.826 in the discovery cohort and 0.818 in the independent test cohort.

Together, these findings highlight significant glycoprotein pathway alterations in response to SARS-CoV-2 infection and underscore the emerging role of glycan-based biomarkers in understanding and predicting COVID-19 outcomes.

Click here to find out more about our exciting biomarker discovery or precision medicine programmes. For more information about this article, visit **our Publications webpage**.

Ludger a Proud Sponsor of the Extracellular Matrix Biology Across Tissue Sites Meeting

As one of the official sponsors of this year's **"ECM Biology Across Tissue Sites"** meeting, Ludger is pleased to support a programme that advances understanding of extracellular matrix biology and fosters collaboration across the research community. This meeting will take place at the University of Manchester from 13th to 14th April 2026.

Click here for more information on this event. Our colleagues, Dr Archana Shubhakar (Head of Business Development) and Carlos Pérez (Scientist) at Ludger, will be attending this event.

If you would like to connect with them at the event for a conversation or learn more about the science we will be presenting, we would be delighted to hear from you. Please **get in touch**.

Accelerate Confident Alpha-Gal Detection with Ludger's Exoglycosidase Sequencing Workflow

As regulatory expectations tighten around glycosylation control, robust detection of the **α-Gal (Galα1-3Gal) epitope** has never been more critical. **Alpha-Gal can compromise both the safety and efficacy of biologics**, yet its low abundance and structural masking make it notoriously challenging to monitor. Ludger's proven workflow provides the clarity you need to ensure confident characterisation by combining N glycan release, fluorescent labelling, targeted exoglycosidase digestion, and high-resolution LC-based analysis.

Release	Labelling	Clean Up	Exoglycosidase Sequencing	Clean Up	Analysis
PNGaseF release kit **E-PNG01** **E-rPNG01** **LZ-rPNGaseF-kit**	LudgerTag 2-AA kit **LT-KAA-A2** **LT-KAA-VP24** LudgerTag 2-AB kit **LT-KAB-A2** **LT-KAB-VP24** **LT-KAB-VP96** LudgerTag Procainamide kit **LT-KPROC-24** **LT-KPROC-96** **LT-KPROC-VP24**	LudgerClean S cartridges **LC-S-A6** LudgerClean T1 cartridges **LC-T1-A6** LudgerClean procainamide plate **LC-PROC-96**	**E-AM01** **E-AM02** **E-BG07** **E-F134** **E-GL01** **E-S001** **E-S005** **E-S007** **LZ-ACASE-KIT** **LZ-FUCOSIDASE-01-KIT**	LudgerClean post-exoglycosidase clean-up spin columns & plate **LC-EXO-A6** **LC-EXO-96**	(U)HPLC, LC-MS or MALDI-MS
Standards & Controls (run with your samples)					
Human IgG Glycoprotein Standard **GCP-IGG-100U**			Alpha-Gal standard **CAA-ALPHAGAL-01** **CAB-ALPHA-GAL-01** **CN-ALPHA-GAL-10U** **CN-ALPHA-GAL-20U**		Glucose homopolymer ladder **CAA-GHP-30** **CAB-GHP-30** **CPROC-GHP-30**

Our workflow starts with the release of the glycans from the sample using our PNGaseF Kit, followed by fluorescent labelling with any of our available tags. A clean-up step after labelling removes any excess dye in preparation for the exoglycosidase sequencing.

Next, using enzymes such as α-galactosidase, β-galactosidase, and sialidase enables unambiguous structural confirmation of α-Gal-containing glycans. When combined with HILIC FLR UPLC or LC MS/MS, **this workflow delivers sensitive, quantitative insights into even complex mAb glycan populations**.

Every step is supported by Ludger's system suitability standards, reference glycan libraries, and process controls, ensuring reproducibility and regulatory confidence.

Whether you are optimising upstream processes, supporting comparability studies, or preparing regulatory submissions, Ludger's Alpha Gal workflow empowers you with dependable, high-resolution glycan analysis.

Ready to strengthen your glycoprofiling strategy? **Contact us** for more information.

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