



OpGen Group Company Ares Genetics Presents R&D Pipeline Updates

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- Preliminary data demonstrates robust performance on nanopore sequencing
- Accuracy of 100% for pathogen identification and up to 97% for AMR markers and up to 100% on predicting AST

ROCKVILLE, Md., June 28, 2021 (GLOBE NEWSWIRE) -- [OpGen, Inc.](#) (Nasdaq: OPGN, "OpGen"), a precision medicine company harnessing the power of molecular diagnostics and informatics to help combat infectious disease, today announced that its subsidiary [Ares Genetics](#), which strives to become a leader in bacterial genomics and AI-powered prediction of antimicrobial resistance (AMR), presented an update on the company's R&D pipeline during two virtual seminars held on June 22 and on June 24, 2021. After having recently announced the development of a target enrichment-based, culture free genomic assay for the comprehensive surveillance of AMR pathogens, Dr. Arne Materna, CEO of Ares Genetics, now presented preliminary data of an ongoing multicenter validation of long-read nanopore sequencing of clinical isolates.

With the economic burden of AMR and more importantly the associated fatalities projected to increase globally, the WHO and national public health organizations continue to emphasize the importance of improving antibiotic stewardship through use of technologies and interventions that promote the optimal use of effective antibiotics and avoid the overuse of antibiotics. Sequencing based technologies for AMR surveillance play an important role in informing the choice of appropriate first-line antibiotic treatment options. During the virtual seminars, Dr. Materna pointed out the importance of extending surveillance efforts especially into low- to mid- income countries where there is potential for becoming host to AMR outbreaks. In order to democratize genomic outbreak surveillance, new sequencing technologies are required that can meet the criteria for lower cost, lower workflow complexity and faster turnaround times to facilitate such technology adoption in these low- to mid- income countries.

Ares Genetics is currently offering its expertise in isolate sequencing services and the AREScloud software for the analysis and interpretation of pathogen genome data. Ares' isolate sequencing, currently relying mostly on Illumina technology, is fully validated and highly accurate with [demonstrated](#) accuracies of 100% for pathogen identification, genotyping and multi-locus sequence typing (MLST), and 99.76% for AMR marker detection.

In order to enable accurate isolate sequencing at a lower cost, faster turnaround time, and reduced complexity for laboratories, Ares Genetics is conducting a multicenter validation of the nanopore sequencing platform by Oxford Nanopore Technology (ONT) in combination with AREScloud for data analysis.

Preliminary results presented by Dr. Materna confirm the robust performance of pathogen genome assemblies based on ONT data, an important prerequisite for AREScloud based data interpretation and predictive AST. While error rates were consistently higher for ONT data than for the de facto standard platform Illumina, and while variability in data quality among participating laboratories could be observed, the quality of the resulting genome assemblies remained consistently high. As a consequence, the AREScloud assisted conversion of ONT data into clinically and epidemiologically relevant information proved highly accurate for participating labs, with average accuracies of consistently 100% for pathogen identification, up to 97% for AMR marker detection, and up to 100% for predictive AST.

In addition to adding ONT sequencing to the Ares NGS service portfolio, Dr. Materna announced that "the company is planning to assess the performance and utility of ONT-based isolate sequencing for clinical routine use in collaboration with a major US academic hospital. In order to facilitate the workflow adoption in laboratories worldwide, results of the multicenter validation and subsequent clinical study are targeted to be published along with the validation protocols in a peer reviewed scientific journal."

A recording of this webinar can be accessed at [OpGen.com](#).

About OpGen, Inc.

OpGen, Inc. (Gaithersburg, MD, USA) is a precision medicine company harnessing the power of molecular diagnostics and bioinformatics to help combat infectious disease. Along with subsidiaries, Curetis GmbH and Ares Genetics GmbH, we are developing and commercializing molecular microbiology solutions helping to guide clinicians with more rapid and actionable information about life threatening infections to improve patient outcomes, and decrease the spread of infections caused by multidrug-resistant microorganisms, or MDROs. OpGen's product portfolio includes Unyvero®, Acuitas® AMR Gene Panel and Acuitas® Lighthouse, and the ARES Technology Platform including ARESdb®, using NGS technology and AI-powered bioinformatics solutions for antibiotic response prediction.

For more information, please visit [www.opgen.com](#).

Forward-Looking Statements

This press release includes statements regarding study data, performance characteristics and potential utility of certain of Ares Genetics' assays and services. These statements and other statements regarding OpGen's Unyvero products, their commercialization and launch, future plans and goals constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. Such statements are subject to risks and uncertainties that are often difficult to predict, are beyond our control, and which may cause results to differ materially from expectations. Factors that could cause our results to differ materially from those described include, but are not limited to, our ability to successfully, timely and cost-effectively develop, seek and obtain regulatory clearance for and commercialize our product and services offerings, the rate of adoption of our products and services by hospitals and other healthcare providers, the fact that we may not effectively use proceeds from recent financings, including our November 2020 private placement, February 2021 Registered Direct and March 2021 warrant exercise and exchange, the realization of expected benefits of our business combination transaction with Curetis GmbH, the success of our commercialization efforts, the

impact of COVID-19 on the Company's operations, financial results, and commercialization efforts as well as on capital markets and general economic conditions, the effect on our business of existing and new regulatory requirements, and other economic and competitive factors. For a discussion of the most significant risks and uncertainties associated with OpGen's business, please review our filings with the Securities and Exchange Commission. You are cautioned not to place undue reliance on these forward-looking statements, which are based on our expectations as of the date of this press release and speak only as of the date of this press release. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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