Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company’s public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
involved in the large-scale production and supply of facemask media.

The company says that it has repeatedly demonstrated its competence in successfully transferring technology and know-how to new applications. It used its knowledge of filtration that is applied in the automotive sector to build up and drive the production and supply of media for facemasks in its Life Sciences & Environment business segment.

The company is in contact with several textile companies for appropriate filter-media inlay supply to upgrade textile mouth–nose masks, which textile manufacturers have started to produce.

In addition to filter media inlays, it implemented large-scale manufacturing of filter masks (daily protective grade) at its Center of Manufacturing Operations in Kunshan, China, and is preparing the set-up of another production line for medical grade (FFP2/N95) face masks.

Membrane and module specialist Microdyn-Nadir, which has been a part of the MANN+HUMMEL Group since 2015, has also contributed significantly in that production at all plants continue as membrane technology plays a vital role in various critical functions, including the production of medications, vaccines or dialysis.

Membranes also make wastewater fit for reuse, or enable the successful removal of bacteria, viruses, pharmaceutical residues or other micro-pollutants before a plant’s effluent is released to an open body of water.

For further information, visit: www.mann-hummel.com & www.microdyn-nadir.com

Sartorius supports coronavirus vaccine research in China

Germany’s Sartorius Ag has been working with organisations in China – supporting their work in developing a coronavirus vaccine.

The company – which serves the biopharmaceutical industry and research sector – has supported CanSino Biologics Inc and Maj. Gen. Chen Wei’s team at the Institute of Bioengineering at the Academy of Military Medical Sciences in their development of the first vaccine candidate against the novel coronavirus SARS-CoV-2 and its entry into clinical trials.

Sartorius says that CanSino BIO and the Institute of Bioengineering used its BIOSTAT® STR single-use bioreactor system for the upstream preparation of the recombinant vaccine, thus ensuring the rapid linear amplification of the adenovirus vector (Ad5-nCoV) and ultimately saving time during development.

The single-use bioreactor system comes with updated BioPAT® toolbox for process monitoring, as well as Flexsafe® STR integrated, single-use bioprocess bags.

According to Sartorius, it has been proven to be used for vaccine manufacturing because it offers rapid scalability and flexibility to adapt to fluctuating demand. The single-use bags prevent cross-contamination and reduce the time needed for washing and sanitation, typically required for stainless steel bioreactors. As such, the amount of time needed to prepare a vector for a vaccine is shortened from several months to (several) weeks.

Huang Xian, Head of Marketing, Sartorius BPS China, commented: ‘We are pleased that we can help our clients and partners accelerate vaccine development whilst maintaining compliance with safety protocols, thereby enabling us to contribute to better health for more people.’

This is the second time Sartorius, CanSinoBIO and the Institute of Bioengineering have collaborated to accelerate vaccine development. In October 2017, Sartorius’ BIOSTAT STR50 bioreactor system was used during CanSinoBIO and the Institute of Bioengineering’s joint development of a recombinant vaccine against Ebola virus disease.

Sartorius recently released details of a quality by design (QbD) tool for use with its amb® automated micro-bioreactor and mini-bioreactor systems, and single-use production bioreactors BIOSTAT STR (Membrane Technology, April 2020, page 5.)

For further information, visit: www.sartorius.com & www.cansinotech.com

Bluewater Bio helps remove phosphorus at sewage treatment works

In the UK, Severn Trent Water, through its key capital delivery partner MWH Treatment Ltd, has selected Bluewater Bio Ltd’s high-rate multi-media filtration technology FilterClear for use in a tertiary solids removal (TSR) plant at Itchen Bank Sewage Treatment Works, Warwickshire.

Bluewater Bio, which specialises in technology for water and wastewater treatment, is providing a fully automated TSR system. This will enable the facility to achieve compliance with the new consent of 0.3 mg/l, with a contractual target of 0.24 mg/l, for phosphorus, says the company. Once completed the FilterClear plant will be capable of treating in excess of 115 l/s.

The work that is being done by Bluewater Bio includes the design, manufacture, supply, installation and commissioning of the TSR plant, with delivery scheduled for autumn 2020.

FilterClear is both a modular and scalable process, treating flows ranging from 2 l/s to in excess of 1000 l/s. In addition to removing phosphorus it also can be used for desalination and reverse osmosis pretreatment.

The technology has a proven track record across multiple applications, both domestically and internationally, having proven to be highly competitive, compared with both conventional and next generation filtration systems, claims Bluewater Bio.

Fergus Rooksby, Commercial Director, Bluewater Bio, commented: ‘We are delighted to work with both Severn Trent and MWH on this phosphorus removal scheme. As we are now moving into AMP 7 this first contract, as part of the early start programme of works, enables us to keep up the momentum in establishing FilterClear as an ideal solution for a chemical dosing approach to low phosphorus consents.’

Rooksby continued: ‘Itchen Bank is our sixth contract with Severn Trent and serves to illustrate that FilterClear technology and Bluewater Bio are a reliable and attractive solution to clients’ phosphorus removal needs for the up and coming AMP.’

For further information, visit: www.bluewaterbio.com/filterclear & www.stwater.co.uk

IDA is accepting applications for scholarship

The International Desalination Association (IDA) is accepting applications for the 2020–2021 Dr K.C. Channabasappa Memorial Scholarship with final applications due by 15 June.

The association says that to be eligible for the award, applicants must have graduated from an accredited university in science or engineering. Moreover, they must prove admission to an MSc or PhD programme of studies in water purification technology. All applicants also must be members of IDA.

To apply, applicants must submit their undergraduate and graduate transcripts to IDA, as well as an official statement of purpose, detailing their planned career in the desalination and water reuse sector.

All applications will be reviewed by IDA’s Education, Scholarship, and Fellowship Committee, with a final recipient announced no later than 1 August 2020. The recipient will...