

News Release – Uppsala, Sweden, December 22, 2022

Edward Kim, M.D., Chief Medical Officer: “I joined Orexo to make a difference in the lives of people suffering from opioid use disorder”

As Orexo continues to develop groundbreaking pharmaceutical treatments for patients, the company is also investing in digital therapeutics, including MODIA®. In this in-depth interview, Edward reflects on his clinical career, his reasons for joining Orexo and how he’s supporting the company in its core mission to combat the US opioid crisis.

In the few weeks I’ve been with Orexo, I’ve seen how a combination of medications and digital technologies can improve the lives of patients with opioid use disorder. I’ve worked with some highly stigmatized patient groups, such as people living with HIV/ AIDS and schizophrenia, but people with opioid use disorder are viewed even more poorly by healthcare professionals and the general public. I joined Orexo to make a difference in their lives.

Extensive experience in psychiatry and public health

During my thirteen plus years in clinical practice as a psychiatrist, I valued getting to know my patients beyond their lab results and physical exams. Each person had a story to tell and life goals of some sort that went beyond managing their disease or condition. As my career progressed, I spent less time in direct patient care as a Medical Director for a large academic integrated delivery system in New Jersey.



Ed Kim, M.D., Chief Medical Officer, at Orexo

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I saw the potential as a health system administrator to help thousands of patients rather than just one at a time as a clinician. You never forget what brought you into healthcare: to make a difference to patients.



Since then, I've worked in several large pharmaceutical companies that have used their global reach to improve the lives of millions through innovation. But I was looking for something smaller, more intimate, yet with the digital leverage to still make a large impact.

The opioid crisis is having a profound impact on many peoples' life

The epidemic has been increasing steadily over the last several years, and it's evolving. Before the Covid-19 pandemic, fentanyl was beginning to emerge as a more common substance of abuse as opposed to heroin and other prescription opiates. With Covid-19, access to treatment was incredibly disrupted, and this contributed to a worsening of the epidemic. The growth in prescriptions for medication assisted treatment (MAT) didn't keep pace with the increasing overdose deaths, and this was likely due to gaps in access to care.

Now that we're emerging from lockdown situations fentanyl use has continued to rise. Today 89 percent of the fatal opioid overdoses are caused by misuse of illicit fentanyl. Many of those are young people who should have a long life to look forward to. We need more powerful rescue medications that can treat life-threatening overdoses quickly and effectively, as well as greater access to MAT that includes effective psychosocial support.

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When I first joined Orexo, I soon realized just how many people have been impacted by the opioid crisis. People have spontaneously let me know about how they've been touched by the opioid epidemic, typically the death of someone or a relative of someone they know.

Advocating for increased access to care is key to curb the growing crisis

Possibly as a result of stigma and bias, there's a long history of under-investment in this area leading to a significant shortage of addiction counsellors and clinicians trained in providing MAT. Clinicians sometimes don't take insurance due to burdensome paperwork and low reimbursement, leading to larger levels of unmet needs.

As a psychiatrist, I can relate to the challenges facing clinicians. A core part of my role is advocating for the availability of all medications for opioid use disorder, regardless of who is making them. I believe that if a patient needs a specific formulation of a drug, they should be able to get what they and the prescriber believe is best without administrative hurdles.



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At Orexo, we want to be part of the solution that enables as many people as possible to have access to MAT regardless of the manufacturer. I’m very proud that Orexo has taken the position that our drug isn’t the only drug that should be available to every patient. The more treatments available the better, in the hope that the ideal match of person and medicine can save lives.

To provide more comprehensive patient support Orexo is offering both effective medications and digital therapies

The most effective treatments for opioid use disorder combine targeted pharmaceutical treatments with psychological therapies to reduce cravings and build new skills and habits to support a healthy lifestyle. When I worked for companies that exclusively developed innovative medicines, I was proud of the pharmaceutical advances. At Orexo, I’m thrilled that we can offer both effective medications and digital therapies to provide more comprehensive patient support.

Over the course of my career, I’ve learned how technology can be a great equalizer, offering greater access to treatment for people who may be physically or socially isolated. Digital therapeutics offer the potential to supplement live therapy, in much the same way as a Personal Trainer might give you homework or training videos to watch between sessions, reinforcing the benefits of what you’re already receiving.

MODIA® is our personalized digital therapy for patients suffering with opioid use disorder. It’s based on cognitive behavioral therapy, motivational interviewing, and mindfulness techniques that many clinicians already use during face-to-face sessions. These techniques have demonstrated clear benefits to patients with opioid use disorder and other mental health needs.

MODIA® presents the user with content and asks for a multiple-choice response. The content that the patient sees as they go through the program is based on the responses they give, so every patient has a personalized experience. When a patient comes for their face-to-face appointment, they can talk about what they have been covering in their MODIA® sessions. It’s a great jumping off point for therapeutic discussions.

Digital therapeutics are still a relatively new category in medicine

The digital therapeutics world is still quite formative, with free wellness apps on the one hand to prescription-only FDA-classified medical devices on the other. Some clinicians are understandably suspicious of this software and what it can do, but I want to emphasize how it’s intended as an extension of their treatment and not as a replacement for it.



Our aim is for MODIA® to be only available by prescription, so we can ensure it's being used as part of medication assisted therapy and, most importantly, that vulnerable patients are receiving comprehensive care.

Generating and publishing credible data from research is vital to helping clinicians move towards a better understanding of the role of digital therapeutics in their practice. And, together with real world clinical data about how services are being used, we're collating a holistic view of patients' needs and best practices.

At the forefront of our strategy is a large clinical study that will support a regulatory filing with the FDA. Orexo has recently completed enrolling over 430 patients receiving buprenorphine/naloxone who are randomized to either MODIA® or their usual psychosocial treatment. We anticipate having results of this six-month study by the summer of 2023.

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Orexo has the right people to fulfil this ambition and, with our truly innovative culture, I'm confident we're already on the right track.

For further information, please contact

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About Orexo

Orexo develops improved pharmaceuticals and digital therapies addressing unmet needs within the growing space of substance use disorders and mental illness. The products are commercialized by Orexo in the US or via partners worldwide. The main market today is the American market for buprenorphine/naloxone products, where Orexo commercializes its lead product ZUBSOLV® for treatment of opioid use disorder. Total net sales for 2021 amounted to SEK 565 million and the number of employees was 121. Orexo is listed on



the Nasdaq Stockholm Mid Cap (ORX) and is available as ADRs on OTCQX (ORXOY) in the US. The company is headquartered in Uppsala, Sweden, where research and development activities are performed.

For more information about Orexo please visit, www.orexo.com. You can also follow Orexo on Twitter, @orexoabpubl, LinkedIn and YouTube.