

# THREE'S COMPANY

*Partnership spawns new venture that may transform care*

Three corporate allies in medicine have come together to form a new company that could save infant lives and revolutionize the care of autoimmune and inflammatory diseases.

EVMS, Children's Hospital of The King's Daughters and Eriko Life Sciences Venture have established the company known as ReAlta Life Sciences, LLC. The company arose from the work of scientist Neel Krishna, PhD, Professor of Microbiology and Molecular Cell Biology, and infectious disease specialist Kenji Cunnion, MD, MPH, Associate Professor of Pediatrics. Neonatologist and researcher Tushar Shah, MBBS, Assistant Professor of Pediatrics, has since joined

the research team.

Drs. Krishna and Cunnion were working in neighboring EVMS labs when they learned of each other's research and decided to join forces. They discovered a way to suppress a potentially deadly pathologic pathway of the human immune system known as the complement response. The complement system defends the body from infection but in certain

circumstances can be harmful or even lethal.

ReAlta's first clinical application is to reduce the effects of neonatal hypoxic ischemic encephalopathy (HIE), a leading cause of infant death and permanent cognitive disability for tens of thousands of infants each year worldwide. HIE results in brain cellular death or damage from a lack of oxygen due to the pathological effects of an over-expressed complement response.

Restoring oxygen as soon as possible is critical for infants with HIE, Dr. Krishna says. "The saying is, 'Time loss is brain loss.' It's like having a stroke."

No drug exists to treat HIE, according to Dr. Shah.

"HIE is a devastating disease that we see all too often in the Neonatal Intensive care Unit," he says. "The current treatment — temporarily cooling the child's body or brain — isn't always successful and only modestly improves outcomes."

ReAlta's experimental drug, dubbed PIC1 (Peptide Inhibitor of Complement C1), has been

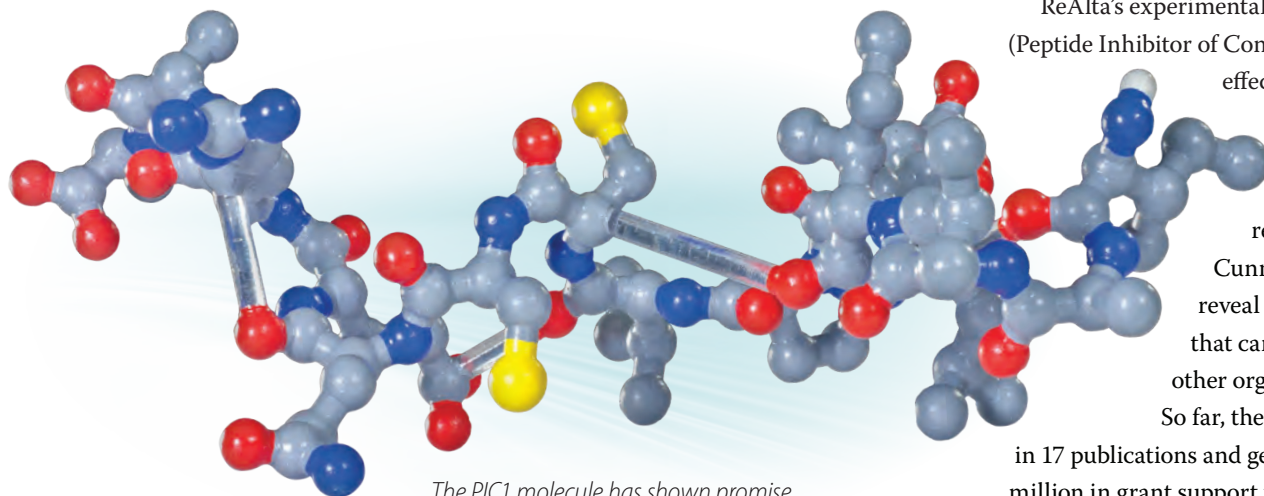
effective in decreasing brain damage in animal models of HIE.

"PIC1 is a remarkable molecule," Dr. Cunnion says. "It continues to reveal exciting new properties that can protect the brain and other organs from severe damage."

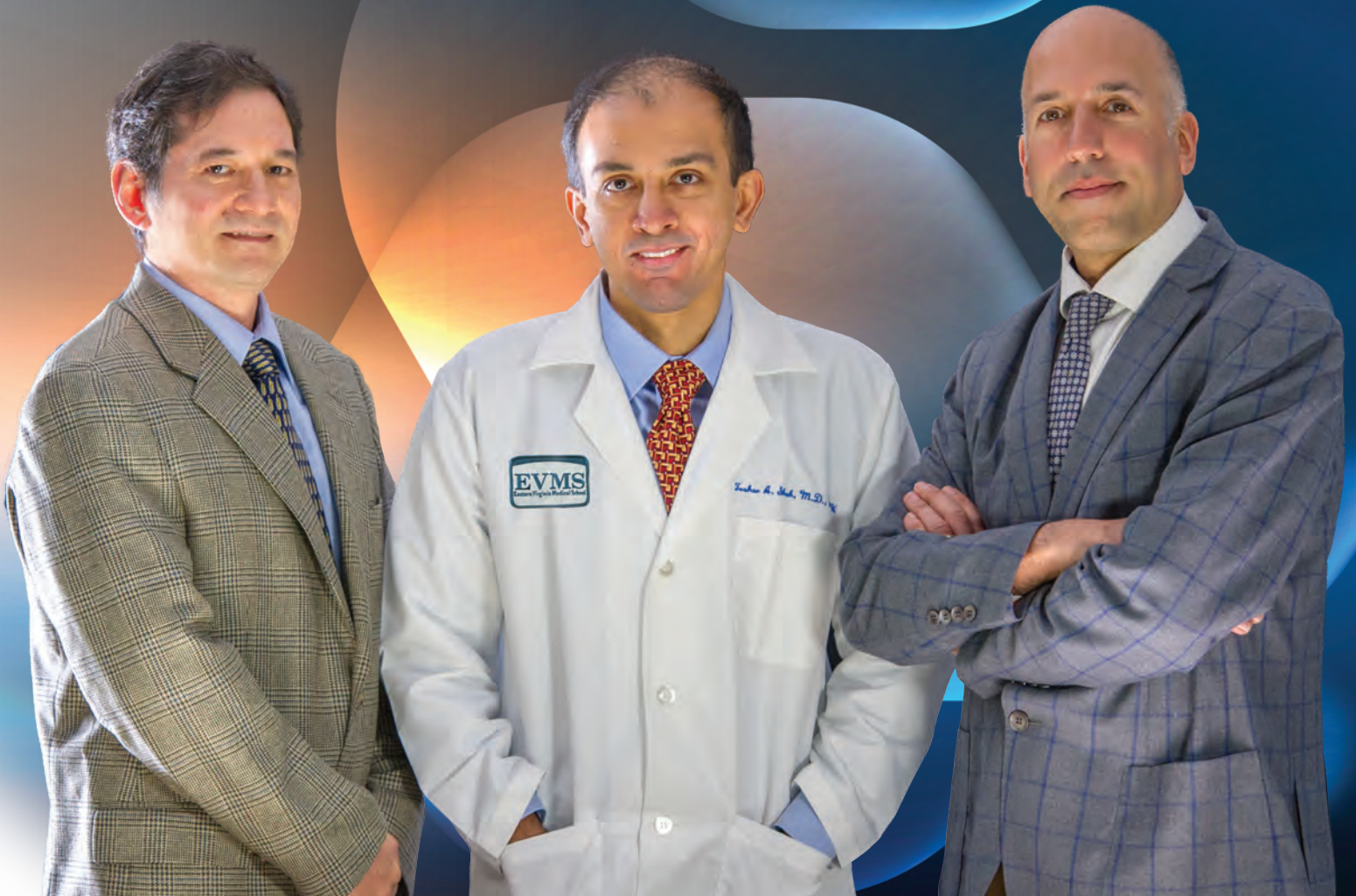
So far, the research has resulted in 17 publications and generated more than \$3 million in grant support to further research.

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*ReAlta is the first outgrowth of a longstanding relationship among the partners and one of the first spin-off companies for EVMS.*



*The PIC1 molecule has shown promise in protecting the brain and other organs in a range of diseases.*



*Pediatric infectious disease specialist Kenji Cunnion, MD, left, and scientist Neel Krishna, PhD, were each conducting their own research when they compared notes and decided to collaborate. Later, they recruited neonatologist Tushar Shah, MBBS, center, to join them.*

“We have enjoyed a productive academic partnership with CHKD and its affiliated physicians and surgeons,” says Richard Homan, MD, President and Provost of EVMS and Dean of the School of Medicine. “ReAlta has the potential to have a remarkable impact in the care of severely ill children. This is a wonderful example of what can result from such a robust alliance.”

CHKD and EVMS have been partners in education since the school opened in 1973. ReAlta’s establishment further enhances that relationship, says James Dahling, CEO and President of Children’s Hospital of The King’s Daughters Health System.

“I’m thrilled to see this research progress to the next level,” Mr. Dahling says. “This work has the potential to save many lives and reflects the value of the longstanding collaboration between CHKD, EVMS and the excellent physicians and researchers who bring so much to our organizations and our community.”

John Harding, COO of CHKD Health System, worked behind the scenes to help bring the new company to life.

“Working on this project, and seeing all the pieces come together as we move forward, has been an incredible experience,”

he says. “I’m extremely impressed by the dedication and humility of Drs. Cunnion and Krishna, and excited about the impact this research can have on our patients and community.”

Julie Kerry, PhD, the EVMS Foundation Distinguished Professor in Biomedical Sciences and Professor and Chair of Microbiology and Molecular Cell Biology, was equally impressed by the research insight, innovation and skills Drs. Krishna and Cunnion demonstrated.

“They had a result in the laboratory that was unexpected and could have been easily ignored,” Dr. Kerry says. “Instead, they decided to pursue it, and Dr. Krishna’s scientific expertise along with Dr. Cunnion’s knowledge of clinical medicine were both necessary to move this research to where it is today. Complement plays a role in so many diseases, and this company could end up generating a therapeutic that could impact millions of lives.”

C.W. Gowen, MD, Chair of Pediatrics, agrees that PIC1 has tremendous potential.

“Any disease process where complement plays a significant role,” he says, “could respond to PIC1 in a beneficial way.” □