

REVEALING THE WORLD OF TOMORROW ... TODAY

**NATIONAL GEOGRAPHIC CHANNEL AND GE PARTNER ON
REVOLUTIONARY NEW SERIES *BREAKTHROUGH***

**Directors Ron Howard, Angela Bassett, Peter Berg, Paul Giamatti, Akiva
Goldman And Brett Ratner Capture Scientific Discovery As It Unfolds**

Watch the trailer: <https://youtu.be/fpGL6WJ-1pg>



Executive produced by Ron Howard, Brian Grazer, Steve Michaels, Jonathan Koch and Mark Dowley, **Breakthrough** is a revolutionary new series about scientific explorers from leading universities and institutions and how their cutting-edge innovations and advancements will change our lives in the immediate future and beyond. The series intends to bring to life the stories, people and technology behind these breakthroughs, and show how they are changing our world.

Each hour-long episode is directed by a Hollywood visionary – Angela Bassett, Peter Berg, Paul Giamatti, Akiva Goldman, Ron Howard and Brett Ratner.

Breakthrough explores the remarkable scientific discoveries in brain science, longevity, water, energy, pandemics and cyborg technology. Lifesaving, mind-boggling innovation is a part of everyday life, so we sometimes take it for granted. It happens in the blink of an eye – on battlefields and playgrounds, in supercolliders and the International Space Station, in smart homes and smart cars. These are modern-day revolutions in how we live.

Breakthrough will explore the courage, imagination, passion and self-sacrifice of the scientists bringing these innovations to life.

Scientific breakthroughs covered in the series include:

How Long Can We Live? (Directed by Ron Howard):

In recent years, close study of the aging process has opened up new ways that could help us all live healthier for longer. Can we move beyond treating individual diseases and instead treat the aging process itself? Would a longer life necessarily be a better life? A loose-knit group of researchers believe the real breakthrough is extending our health span – the period of life spent free of disease. Hear from **Laura Deming**, who dropped out of M.I.T. and committed herself to finding and funding projects that can expand the human health span, and **Dr. Brian Kennedy**, whose work in the basic biology of aging has been crucial to the development of countless other researchers' work.

The Brain: The Final Frontier (Directed by Brett Ratner):

After millennia of speculation about what goes on inside the human brain, we now have the tools to explore its hidden reaches. These tools are leading to breakthroughs that may free thousands from comas and afflictions such as epilepsy and Alzheimer's disease. They are also shedding light on the mystery of consciousness and what makes us who we are. Meet leading researchers and scientists, such as **Dr. John Schenck**, who helped develop the MRI and was the first person to have his brain imaged by the machine in the early 1980s; and **Dr. Steve Ramirez**, who has found a way to change our memories and our feelings about those memories.

Water Apocalypse (Directed by Angela Bassett):

California is on the brink of an apocalypse. The state faces a future of drought that will cost billions in lost farm revenue and thousands of jobs. The challenges facing the state are not unique: all over the world, governments are struggling with bigger populations and a diminishing supply of freshwater. Bassett focuses on inspiring stories of people working to change the world, such as **Sandra Postel**, who is trying to bring water back to the Colorado Delta, which became a dried-up husk after the Colorado River was diverted to feed the western United States; **Aaron Mandell**, whose solar-powered desalination project offers a way to conserve and reuse this precious resource; and Italian architect **Arturo Vittori**, whose quest to build a water-collecting tower in a remote village in Ethiopia dramatizes all the triumphs and challenges of innovation.

More Than Human (Directed by Paul Giamatti):

Chances are you either are, or you know, a cyborg: a person who is aided or enhanced by embedded technology, such as artificial limbs or pacemakers. But advances in science are taking us beyond replacement parts and into a new realm that is changing the nature of the human body and the human mind. The fusion of biology and technology is making us better, stronger, faster and smarter. How we think, how we feel, how we experience the world: everything is changing. Now we are learning how to manipulate our genetic code and seize the keys to creation. But as the natural and man-made worlds merge, will we become more than human? Watch **Trish Aelker** at Lockheed Martin Exoskeleton Technologies build exoskeletons that give mere mortals super strength, and **Dr. Miguel Nicolelis**, a brain-machine interfaces expert whose work with the Walk Again Project is giving hope to people with traumatic spine injuries.

Fighting Pandemics (Directed by Peter Berg):

Berg takes viewers into the dramatic, inspiring and sometimes heartbreaking world of pioneers scrambling to stop an outbreak and save the world from future plagues. The current Ebola outbreak is forcing medical science to evolve as quickly as the virus it is fighting, provoking breakthroughs that may give birth to a world virtually free of pathogens. From antibiotics and vaccines to computer programs that predict how viruses will spread, new lifesaving tools will be used to fight a wide range of viruses in the near future, including HIV, influenza, dengue fever, malaria and a host of other killer diseases. Follow **Dr. Maria Croyle**, who has developed a revolutionary way to introduce a vaccine into a common

cold virus; and **Dr. Ian Crozier**, a World Health Organization (WHO) virologist who fought Ebola in Sierra Leone until he contracted the disease himself and spent 40 agonising days locked in an isolation ward at Emory University Hospital. Crozier recovered – only to find the virus was still multiplying in his eye.

Energy From The Edge (Directed by Akiva Goldsman):

We are surrounded by clean, raw energy waiting to be tapped – energy that could eventually replace fossil fuels. Finding new ways to harness the energy around us takes a rare breed of scientist/engineer: men and women with a combination of technical skill, imagination and unwavering focus. This hour follows innovative alternative energy projects and the colourful people behind them, like engineer **Louis Michaud**, who is building a tornado machine to harness the energy it produces; and the team at the National Ignition Facility, who are trying to save the world through the power of controlled fusion.

Presented by National Geographic and GE, brands long dedicated to innovation, science and exploration, the series will air later this year on National Geographic Channel in 440 million homes in 171 countries and in 45 languages. Additional executive producers include Michael Rosenberg from Imagine Entertainment, Ryann Lauckner and Kurt Sayenga from Asylum Entertainment, Beth Comstock from GE, and Hamish Mykura from National Geographic Channels International.

GE and National Geographic Channel are united in their commitment to inspire the most curious minds the world over with the new series **Breakthrough**.

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About National Geographic Channels International

National Geographic Channels International (NGCI) inspires viewers through its smart, innovative programming that questions what we know, how we view the world and what drives us forward. A business enterprise owned by National Geographic Ventures and FOX Entertainment Group, NGCI contributes to the National Geographic Society's commitment to exploration, conservation and education through its various channels: National Geographic Channel, National Geographic Channel HD, Nat Geo Wild, Nat Geo Wild HD, Nat Geo People and Nat Geo Mundo. Globally, National Geographic Channel (including NGC U.S., which is a joint venture of NGV and Fox Cable Networks Group) is available in more than 440 million homes in 171 countries and 45 languages. For more information, please visit www.natgeotv.com.

About GE

GE (NYSE: GE) imagines things others don't, builds things others can't and delivers outcomes that make the world work better. GE brings together the physical and digital worlds in ways no other company can. In its labs and factories and on the ground with customers, GE is inventing the next industrial era to move, power, build and cure the world. www.ge.com

About Imagine

Imagine Entertainment was founded in 1986 by Ron Howard and Brian Grazer to create independently produced feature films, television programs and other original programming. Imagine Entertainment has been honoured with more than 60 prestigious awards including 10 Academy Awards and 36 Emmy Awards. Past productions include Academy Award Best Picture winner *A Beautiful Mind*, *8 Mile*, *Apollo 13*, *American Gangster*, *The Da Vinci Code*, *8 Mile*, *Liar, Liar*, *Backdraft*, and *Parenthood* to name a few. Upcoming films include *Get on Up* and *In The Heart of the Sea*. Television productions include NBC's *Parenthood*, NBC's *Friday Night Lights*, Fox's *24* and *24: Live Another Day*, Fox's and Netflix's *Arrested Development*, Fox's *Gang Related*, as well as HBO's *From the Earth to the Moon*, for which Howard and Grazer won the Emmy® for Outstanding Mini-Series. Current television productions include Fox's *Empire*. Ron Howard and Brian Grazer began their collaboration in 1985 with the hit comedies *Night Shift* and *Splash*, and continue to run Imagine Entertainment as chairmen.

About Asylum

Asylum Entertainment has produced a diverse slate of event miniseries, feature films, gritty documentaries and provocative unscripted series — thousands of hours of programming in its 12-year history. Notable productions include the miniseries "The Kennedys," which won four of the 10 Emmy Awards for which it was nominated, and "Ring of Fire," which garnered four more Emmy nods. Last year, Asylum received glowing reviews for its feature documentary "Happy Valley," about the Penn State sex scandal, as well as for a coming-of-age feature film titled "Small Time." Asylum's event miniseries about Marilyn Monroe's turbulent relationship with her schizophrenic mother (starring Susan Sarandon, Emily Watson, Jeffrey Dean Morgan and Kelli Garner) will air in May, and a film about the young devotees of Charles Manson is now in pre-production. Asylum's factual series include ESPN's Emmy-winning series "30 for 30," "Beverly Hills Pawn," "Addicted," "Being Mike Tyson" and "American Gangster." Asylum Entertainment is owned by Legendary Entertainment, a leading media company with film (Legendary Pictures), television and digital (Legendary Television and Digital Media) and comics (Legendary Comics) divisions dedicated to owning, producing and delivering content to mainstream audiences with a targeted focus on the powerful fandom demographic.