

LOGLINE

SYNOPSIS

RESILIENCE: THE BIOLOGY OF STRESS & THE SCIENCE OF HOPE

chronicles the birth of a new movement among pediatricians, therapists, educators and communities, who are using cutting-edge brain science to disrupt cycles of violence, addiction and disease.

"The child may not remember, but the body remembers."

The original research was controversial, but the findings revealed the most important public health findings of a generation. *RESILIENCE* is a one-hour documentary that delves into the science of Adverse Childhood Experiences (ACEs) and the birth of a new movement to treat and prevent Toxic Stress. Now understood to be one of the leading causes of everything from heart disease and cancer to substance abuse and depression, extremely stressful experiences in childhood can alter brain development and have lifelong effects on health and behavior.

However, as experts and practitioners profiled in *RESILIENCE* are proving, what's predictable is preventable. These physicians, educators, social workers and communities are daring to talk about the effects of divorce, abuse and neglect. And they're using cutting edge science to help the next generation break the cycles of adversity and disease.





"This is the biggest public health discovery we've ever seen."

- Laura Porter, Co-Founder, ACE Interface

When it was controversial to even think of asking patients about taboo subjects, the ACE Study dared to ask questions like, *Were you sexually abused as a child? Did you have a parent who was an alcoholic?* The answers produced a public health revelation. For the first time, the loss of a parent through death, divorce or incarceration and other traumatic childhood experiences such as living with an alcoholic parent or being sexually abused was conclusively linked to both physical and mental health problems later in life. ACE, or Acute Childhood Experiences score, are now understood to lead to early onset heart disease diabetes, addiction and depression. Understanding that a broken-hearted child is more likely to suffer from mental and physical illnesses as an adult has professionals of all kinds asking, *How can we help children before their physical and mental health problems emerge as adults?*

RESILIENCE: THE BIOLOGY OF STRESS AND THE SCIENCE OF HOPE uses beautiful animation and compelling characters to explore the science and the solutions. The film follows pioneering individuals who looked at the ACEs research and the emerging science of Toxic Stress and asked, Why are we waiting? Each took this new information and used it in new ways.

Dr. Nadine Burke Harris, a pediatrician in San Francisco, intervenes early with her young patients who are greater risk for diabetes and asthma as well as learning and behavior problems now. In New Haven, Connecticut, we meet Alice Forrester and Laura Lawrence of The Clifford Beers Clinic, which provides mental health services for children by including the entire family in their programs. In an elementary school across town, kindergarteners recite "Miss Kendra's List"—a bill of rights for children—and learn ways of expressing and coping with their stress. In the great Northwest, communities across the state of Washington brought together teachers, police officers, social service workers and government officials to learn about the brain science of adversity. Since implementing "trauma-informed" policies and practices, these communities have seen drastic reductions in rates of everything from dropping out of high school to teen pregnancy, and youth suicide domestic violence.

RESILIENCE: THE BIOLOGY OF STRESS AND THE SCIENCE OF HOPE chronicles the promising beginnings of a national movement to prevent childhood trauma, treat Toxic Stress, and greatly improve the health of future generations.





Nadine Burke Harris, MD Pediatrician CEO, Center for Youth Wellness San Francisco, CA



Robert Anda, MDEpidemiologist, Centers for Disease Control
Co-Founder, ACE Study



Vincent Felitti, MDChief of Preventive Medicine,
Kaiser Permanente San Diego
Co-Founder, ACE Study



Jack Shonkoff, MD
Pediatrician
Director, Center on the Developing Child,
Harvard University



Laura Lawrence Family Advocate, Clifford Beers Clinic New Haven, CT



David Johnson, PhDClinical Psychologist
Co-Director, Post Traumatic Stress Center
New Haven, CT



Laura Porter Co-Founder, ACE Interface Washington State



Victor Carrion, MDDirector of Research Programs,
Early Life Stress & Pediatric Anxiety Program
Stanford University



Alice Forrester
President/CEO, Clifford Beers Clinic
New Haven, CT



When I started hearing about the emerging science of adversity and childhood stress, my mind was blown. High "doses" of stress during childhood get into our bodies, change our brains, and lead to lifelong health and social problems—everything from domestic violence and substance abuse to heart disease and cancer. Who knew that if your parents got a divorce when you were growing up, you have a significantly higher risk of heart disease? Or that if your mother had a drinking problem, your own risk for depression in adulthood is much higher? The science of "Toxic Stress" and the major findings that came out of the Adverse Childhood Experiences (ACEs) Study should be common knowledge public health information. But the movement is still in its infancy.

We started making *RESILIENCE* to make this science digestible and relevant to everyone, and to showcase some of the brave and creative individuals who are putting that science into action. There is a growing group of pediatricians, educators and communities who are proving that cycles of disease and adversity can be broken.

In the United States, we spend trillions of dollars every year treating preventable diseases, rather than intervening before a patient is sick and suffering. We have a zero-tolerance, "suck it up" culture that judges and punishes bad behavior, rather than trying to understand and treat the root cause of that behavior. But now, with this new body of scientific knowledge available, we are learning there are better ways of dealing with these seemingly intractable problems.

RESILIENCE has a companion film: **PAPER TIGERS** follows a year in the life of an alternative high school in Washington State who radically changed its approach to student discipline, with radically positive results. Our goal with these two projects is to make "Toxic Stress" and "ACEs" household terms, so that individuals and communities are empowered to improve the health and wellbeing of this and future generations.



James Redford



James started his collaboration with Karen Pritzker on HBO's THE BIG PICTURE: RETHINKING DYSLEXIA, a film that gave hope to millions of families around the world who have struggled to educate their dyslexic children. From there, they turned their story-telling eye on the hidden menace of adverse childhood experiences with two documentaries—PAPER TIGERS and RESIL-IENCE: THE BIOLOGY OF STRESS AND THE SCIENCE OF HOPE. PA-PER TIGERS, currently on the festival and screening circuit, aired on PIVOT TV near the end of 2015. James also co-founded and is current Chair the Redford Center, a film production non-profit that translates complex environmental challenges into human stories that inspire. Recent honors include the 2014 WildCare Environmental Award, 2015 filmmaker envoy for USC/US State Department's American Film Showcase as well as serving the leadership circle for the UN's second annual Media for Social Impact Summit. James lives in Marin County and is married to Kyle Redford, a popular educational blogger for Edweek, Huffpost and Noodle.

Karen Pritzker



Karen is a film producer, editor and writer. She executive produced *PAPER TIGERS* as well as *THE BIG PICTURE: RETHINKING DYSLEXIA*, a documentary that demystified dyslexia and generated widespread awareness of this misunderstood disability. *RESILIENCE*, Pritzker's third documentary with James Redford, chronicles the dawn of a new movement led by trailblazers in pediatrics, education and social welfare who are using cutting-edge science and field-tested therapies to protect children from the insidious effects of Toxic Stress. In addition to her film credits, Pritzker co-founded the My Hero Project, an interactive website for kids that is devoted to telling the stories of ordinary people who have accomplished extraordinary things. She is also President of Seedlings Foundation.



Dana Schwartz



Dana Schwartz is a filmmaker, social advocate and the Co-Producer of *PAPER TIGERS* and *RESILIENCE*. Dana combines her passions for public health and documentary film to promote advocacy and widespread social awareness through a trauma-informed lens. She earned her Master's in Social Work from Columbia University, where she specialized in advanced clinical practice. As part of her degree, she worked for the National Multiple Sclerosis Society and NYU Langone Medical Center's Initiative for Women with Disabilities, where she gained a profound understanding of healthcare disparities and how to promote social equality for marginalized populations.



Directed by

Produced by

Executive Producer

Executive Producer

Co-Producer

Edited and Written by

Supervising Producer

Music by

Cinematographers

James Redford

Karen Pritzker & James Redford

Chris Kelly

Mike Martin

Tvlor Norwood

Bob Richman

Kyle Rooney

Petr Stepanek Mark Thalman

Greg Sabo

Karen Pritzker

Regina K Scully

Dana Schwartz

Jen Bradwell

Brook Holston

Garth Stevenson

John Behrens

Jason Blalock

Luke Buck

John Chater Jonathan Furmanski

Brian Gurnett

Peter Hutchens

Rich Joy

Shannon Stirone Norwood

Christopher Barnett

Post-Production Sound

Sound Designer and

Re-Recording Mixer

Services by

Line Producer

Skywalker Sound

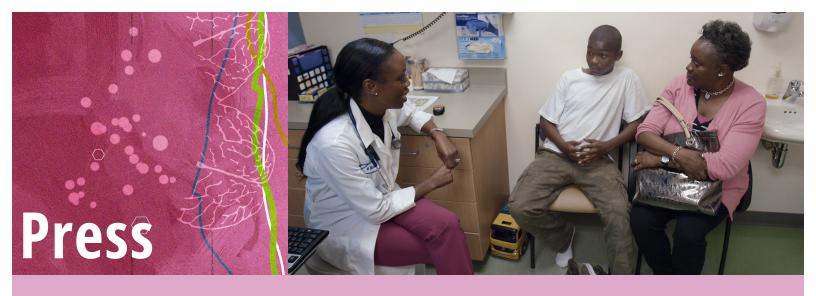
A Lucasfilm Ltd. Company,

Marin County, California

HD Post Production by

Zap Zoetrope Aubry Productions,

San Francisco



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"RESILIENCE is a fascinating documentary that eloquently explains the health-care issues that confront us directly and indirectly on a daily basis. But more than that, RESILIENCE gives us the solution to this problem. Rarely do you find a documentary that highlights a problem and gives a solution. It's a film every educator, health-care provider, and lawmaker should see."

- Pamela Powell

"...an engrossing study of how Adverse Childhood Experiences (or ACEs) can be linked to destructive behavior and medical diseases."

- Matt Fagerholm, ROGEREBERT.COM

"...an able and worthy fire-starter that deserves a wide public and family audience.

Consider this new required viewing for counselors, teachers, school leaders,

medical teachers, and open-minded parents that want to address what

shouldn't be bottled up any longer."

- Don Shanahan of Every Movie Has a Lesson

"It's a film that is necessary viewing for a deeper knowledge of what you or others have gone through in life and also serves to enlighten us closer to a greater empathy and understanding for others in our community."

-David J. Fowlie, Keeping it Reel



"There was a sense of disbelief. People actually said, 'Rob, this can't be true.

Because if this were really true, it would've been studied and published.""

- Dr. Robert Anda, Epidemiologist, Centers for Disease Control

"We tend to the world of mental health from the world of physical health.

But the body doesn't do that. The body is only one."

- Dr. Victor Carrion, Stanford University

"This is the biggest public health discovery we've ever seen."

- Laura Porter, Co-Founder, ACE Interface

"The sad thing is that a lot of our students think that what they are going through is normal.

This is their normal. If no one has given them a way to think otherwise, I think

that's why the cycle just keeps going and going and going."

– Cynthia Manifold, Kindergarten Teacher, Strong Elementary School, New Haven, CT

"Being in a community where you are hearing gunshots on the daily, where you are having friends who are being killed or being incarcerated, that really affects your body. It gets under your skin."

- Dr. Nadine Burke Harris, Pediatrician, CEO, Center for Youth Wellness, San Francisco, CA

"If I had to boil it down for one thing for people to learn from this science, its to totally put to bed forever this sense that children who are born under disadvantaged circumstances are doomed to poor life outcomes. The science is saying that's just not true."

– Dr. Jack Shonkoff, Pediatrician, Director, Center on the Developing Child, Harvard University