Autism is Predictable, Preventable and Treatable

Not Just A Dream, Almost a Reality
Need in the Community for a Structured Program for Autism

We have a significant opportunity of changing the way ALL individuals with autism in Oregon receive treatment.

We also have a way of predicting and preventing autism based on new research that we will be publishing in PEDIATRICS.

The rates of autism in Oregon are among the highest in the country. It is estimated that one in 30 children born in Oregon this year will develop autism. These numbers are only getting worse and we need to address this with effective programs. With proper intervention many children do not have to develop autism. With proper treatment many of children with autism already will make remarkable improvements saving the State of Oregon billions of dollars in unneeded future care.

Imagine a world where the rising tides of autism are reversed, and parents hearing the word “autism” for the first time know they have a safe place to get information and answers. Imagine a world in which children born with a predisposition to autism are given the resources to reach their own personal best outcomes before they reach first grade. Imagine a world where autism is not considered a curse, but rather a preventable, reversible, and otherwise treatable condition.

Imagine all of this within reach, because it is.

Join us as we continue to make advancements in the world of autism. We need you now more than ever.

Sincerely,

Beth McShane
Executive Director
Northwest Autism Foundation
503-557-2111
autismnwaf.org

KEY ACTIVITIES

To dramatically improve the lives of all those affected by ASD in the relatively near future, the partnership will focus its activities in the following area:

LIFESPAN

Dedication to a program called Lifespan that provides effective solutions across a persons lifetime.
The following are our Quick WINS programs (Ways of Implementing New Solutions)

- **P2i: Preconception to Infancy**
  Safe Pregnancies and Healthy babies. A comprehensive program for couples from Preconception through Infancy that dramatically improves healthy outcomes.

- **High Risk ONE YEAR OLDS:**
  Predicting Autism and Intervening to prevent Autism with High Risk infants at ONE YEAR OLDS: --Building a Virtual Autism Campus for Medical and Behavioral Treatment and access to resources

- **Autism Campus**
  A virtual campus for health professionals and individuals with autism and their families. In the campus participants will learn how to **Predict**, **Prevent** and **Treat** individuals with autism and related disorders. It can occupy up to 30,000 participants at one time.

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Today’s new CDC rates for autism are 1 in 68 children.

Incidence rates for autism have risen rapidly in recent years; in its 2014 report, CDC estimated—based on 2008 data on eight-year-olds from 14 states—that 1.5 percent of U.S. children, or one in every 68, are now on the autism spectrum. Boys are more likely to have the disorder, with one in 32 affected.

Though shifts in diagnosis account for some of this dramatic rise, public health experts have determined that diagnostic changes do not fully explain the trend.

Researchers believe autism spectrum disorders reflect changes in brain structure occurring during critical windows of development in the womb. These shifts in brain architecture may be caused by genetics, environmental insults such as chemical exposure, or an interaction between the two.
We are the Northwest Autism Foundation (NWAF)

We are an organization that serves Oregonians with Autism Spectrum Disorders and related Neurodevelopment Disorders throughout our state.

NWAF believes the children, adults and their families, who are touched by these disorders, deserve an early diagnosis, deserve to have access to evidence-based treatments, and need to receive accurate information regardless of age, income, or race.

Our main purpose is to ensure that services are available to all, and to keep all of you informed of progress in this area.

NWAF supporters are not interested in dwelling in past problems or animosity. We look toward a bright future, working together to help those affected by ASD. Collaboratively we work together to cause change.

What is it like to have a child diagnosed with Autism?

When a child or adult is diagnosed with an acute illness, such as cancer, immediate triage, treatment and services are mobilized within weeks to create a plan for that person and family—and often, that plan not only involves medical treatment, but planning for a lifetime in order to significantly improve the lives of the patient.

Conversely, the identification of signs of autism spectrum disorder in a child, regardless of age, sets in motion a series of obstacles, confusion, and despair for the family involved. Screening and diagnoses often is elusive, leaving the person and family with inappropriate or no services since insurance companies, the education system and, at times, the government support system require official diagnoses for services.

The acute medical illnesses and discomfort now associated with many children with Autism, such as gut issues and allergies, are ignored as the family is sent from pediatrician (or teacher) to behaviorists, therapist, or whichever nearest source claims to know autism. Communication impediments are misdiagnosed and treated, channeling children into a downward spiral of disciplinary or therapy programs based solely on behavior. Parents have to move to get appropriate services, quit jobs to take over the care of the child, families separate due to the major financial, emotional and physical stresses, and the rate of divorce, bankruptcy, unemployment, and most tragically, violence increases.

Wrap this up in a disorder whose prevalence in Oregon is more than 1 in 50 children, and 1 in 30 boys, and you have a community that has been ignoring a broken system that is affecting more than 10,000 Oregon families and growing.

The broken system results in a permanently disabled person that on the average require $3,200,000 of services throughout their lifetime not to mention the collateral costs of emotional damage for those that love them.

We need to be able to identify the financial investment and fundraising goals needed to deliver these services.

This is all about to change.
P2i (Preconception to Infancy)

The unique partnership created by Northwest Autism Foundation (NWAF) and The FORUM is entirely built upon delivering solutions about ASD. Key to the success of this venture is the fact that both organizations believe that ASD is predictable, preventable and treatable. We are committed to effective treatment delivery. With the knowledge we have today, we know that successful research and service delivery is achievable to maximize the potential of every individual with ASD and create the opportunities to allow those with ASD to live and thrive within their communities. This shared goal is a powerful tool.

NWAF brings to the partnership their 15+ years of history in being the leader in Oregon in bringing solutions to our community for autism. Currently, The FORUM is the largest single THINK TANK for the Autism Community and they have made a sizable commitment to this population.

The partnership will combine NWAF considerable resources, national reputation with THE FORUM’s credibility, autism expertise, international relationships and partnering affiliates proactively and aggressively address the crisis in ASD.

Imagine that you had funded the research that cured polio. Your legacy would benefit future generations of every nation in the world; you would have changed the world permanently and for the better. The P2i project presented here can be far more transformational than Salk’s polio vaccine: it has the potential of saving future generations of children from the rising tide of chronic illnesses, allowing them to reach their full potential.

The Forum, a 501(c)(3) foundation, has sponsored scientific and medical “think tanks” focused on preventing chronic illness in children. Together, NWAF and The Forum are building on the insights generated at their think tanks and discussions by launching a major public health initiative. We call our initiative preconception to infancy, or P2i for short. P2i aims to empower women to have healthy, full term pregnancies that dramatically reduce the incidence of chronic disorders among their children, who can then realize their full physical and neurological, cognitive and emotional potential.

The fetal origins hypothesis associated with Dr. David J. Barker posits that chronic, degenerative conditions of adult health, including heart disease and type 2 diabetes, may be triggered by circumstance decades earlier, in utero nutrition in particular.

Economists have expanded on this hypothesis, investigating a broader range of fetal shocks and circumstances and have found a wealth of later-life impacts on outcomes including test scores, educational attainment, and income, along with health.

In the process, they have provided some of the most credible observational evidence in support of the hypothesis. The magnitude of the impacts is generally large. Thus, the fetal origins hypothesis has not only survived contact with economics, but has flourished.

Douglas Almond, PH.D. and Janet Currie, PH.D., Associate Professors of Economics, Columbia University.

Dr. David Barker of the Heart Research Center at OHSU, is quoted in the TIME MAGAZINE article as the originator of the Fetal Origins theory. He has published more than three hundred papers and written or edited five books about the developmental origins of chronic disease.
Did you know that in America 31% of all pregnancies end in miscarriage and 12% in preterm births?

Or that 40% of children born now will develop a chronic disease by the age of five? Or that these numbers are getting worse – much worse? Does it shock you to learn these things? It shocked us – and we resolved to do something about it.

We discovered that improving pregnancy outcomes and babies’ health is not only possible but not very difficult!

There is bitter irony here: scientists and clinical practitioners already know how to create environments that hugely improve the odds of full-term pregnancies and healthy children. But their knowledge is not being publicized; the public remains unaware and women and children suffer needlessly as a result. NHF and The Forum intend to change that: our vision is to spread the word, to make tested protocols available for practitioners’ use and thereby to positively impact ONE MILLION CHILDREN IN FIVE YEARS.

Not least among the benefits of P2i are economic savings. Our program costs are exceedingly modest but will generate high leverage: each dollar invested is expected to save thousands of dollars in future costs to parents and governments. Consider this: in 2012, costs associated with miscarriages, preterm births and childhood chronic illnesses in this country alone reached an estimated $500 BILLION – almost as much as the total cost of Social Security.

NWAF and The Forum propose simple protocols that include reducing toxic body burdens of prospective mothers and providing them with optimal nutrition, including vitamin D, during the preconception and prenatal periods. Personalized medical testing will check for some of the most common preventable problems, such as insufficient levels of iron or vitamin D, and act to remedy the deficiencies.

Although simple, these protocols are expected to yield dramatic reductions in miscarriages, preterm births and chronic childhood illnesses. This expectation is based both on published, peer-reviewed, hard science and on the clinical experience of physicians who have used similar protocols in their practices for years and who

Unhealthy Pregnancies, Unhealthy Children

Unhealthy pregnancies and specific chronic childhood conditions are connected to environmental and nutritional problems from preconception to infancy.

The chronic conditions also include obesity, cancer, type one diabetes, and many other childhood problems.

### Before Birth

<table>
<thead>
<tr>
<th>Condition</th>
<th>Probability</th>
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</thead>
<tbody>
<tr>
<td>Miscarriage</td>
<td>31%</td>
</tr>
<tr>
<td>Preterm Birth</td>
<td>12%</td>
</tr>
</tbody>
</table>

### After Birth

<table>
<thead>
<tr>
<th>Condition</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autism</td>
<td>1 in 50</td>
</tr>
<tr>
<td>Asthma</td>
<td>1 in 8</td>
</tr>
<tr>
<td>Allergic Eczema</td>
<td>1 in 5</td>
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<tr>
<td>Serious Food Allergies</td>
<td>1 in 12</td>
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<tr>
<td>Celiac Disease</td>
<td>1 in 80</td>
</tr>
<tr>
<td>ADHD</td>
<td>1 in 7</td>
</tr>
<tr>
<td>Dyspraxia</td>
<td>1 in 12</td>
</tr>
<tr>
<td>Bipolar Disorders</td>
<td>1 in 30</td>
</tr>
</tbody>
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report almost no miscarriages among patients and no chronic childhood disorders among their patients’ infants.

We believe that parents-to-be want to use all available information and tools to make the best choices for their child – before it is born; even before it is conceived. The P2i program makes good choices practical.

Commit your determined support to the health of newborn children. Help them reach their full potential. Talk to us about what you can do.

The Website.

The P2i initiative’s other major publicity effort will take the form of a novel, content- and experience rich, 3D website that will serve as a forum for learning and discussion about P2i and related topics. Mothers-to-be, spouses and partners, doctors and other health care professionals, scientists and anyone else interested will be able to share their thoughts and experiences in a virtual environment custom-designed to resemble a university campus in appearance and tone.

One campus ‘building’ may store CME courses for practitioners, accessible to the public; another may feature recorded and real-time lectures by leading scientists; and a third may host spontaneous discussion groups. Vendors of supporting products may lease their own buildings.

The Website will also let parents register and track their P2i participation through their babies’ early childhoods. This registry will open a valuable window through which parents can evaluate their own adherence to P2i recommendations, document their children’s health outcomes and observe the experiences of other participating families – all anonymously.

The Website will provide a platform for a global conversation on safe pregnancies and healthy children – available 24 hours a day, 365 days a year.

It offers the benefits of live events without the cost and expense of travel. Visitors can hear any of the hundreds of scientists and doctors whose lectures and papers will be accessible in the various conference halls and meeting places. They can communicate with other attendees and professionals via chat and ultimately through video and telepresence. They can discover doctors, health care coaches, products, and services that meet their individual needs. Focusing on a particular topic, they can get a thorough immersion in a relatively short amount of time.
With the Website drawing the expected 11 million visitors a year, The Forum will glean massive amounts of data that will further its scientific goals, including what speakers visitors listened to, what topics were of interest to them, and what success couples enjoyed through use of P2i protocols. Doctors can be trained in P2i protocols while getting CME credits. Couples will be able to instantly find practitioners in their local communities to help them with the P2i Protocol.

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**Project - Preventing Autism with High Risk Infants**

In Oregon this year over 1,400 children will be born with a certainty of developing autism by the age of 2 years old. This number is increasing at 15% a year.

Without intervention, these children will add to the over 12,000 children in Oregon facing a life with autism. In addition the staggering cost of this for the 1,400 infants will be over $3.2 million each in local and federal costs or over $4.4 billion in unfunded liability in Oregon alone.

Here is the good news. We have a solution. The solution will be published in Pediatrics in several months as a 65 page insert. It is the consensus of 26 of the brightest academics in the world that are all agreeing on the same solution.

It is:

1. the early detection of infants at high-risk of developing autism, and
2. the design, implementation, and evaluation of early interventions for infants at high-risk of developing autism (Early Start Denver Model or ESDM).

The Northwest Autism Foundation (NWAF) through The FORUM organized and facilitated this conference that set the stage for on-going, innovative, national and inter-national autism community outreach to predict and prevent autism.

Coordinated by the Autism Forum, which is itself a major project of NWAF, our Identification and Intervention of Autism: Achieving Best Outcomes conference developed consensus approaches to the issues of early identification and intervention. Together, medical practitioners and clinical researchers in the field of autism and developmental disabilities developed diagnostic tools and best-practices standards.
Our ultimate goal is, in short, to preempt the development of autism.

This landmark study will be published in Pediatrics (the official publication of the American Academy of Pediatrics – 60,000, members)

This publication is the first step towards that goal.

Our success will change the lives of infants who would otherwise develop autism and their families, and, more generally, our success will drastically lessen the enormous – and growing – social and economic costs of autism.

The investment in this program is modest. We expect to reach over 50% of the infants with our campaign that will save over $1.8 billion a YEAR in savings (assuming rates do not continue to increase). Our vision is to reach everyone.

Many of these benefits will not, and cannot, be recorded in any ledger or database. The avoided suffering of a father watching his baby lose the ability to babble and coo. The joy of a child spontaneously hugging her mother. These are the most valuable payoffs of early identification and intervention.

While our highly successful conferences underscores the effectiveness of this approach, we know this is a long-term effort that will require a long-term commitment. The boards of both the Northwest Autism Foundation and the Forum recognize that our time, energy and financial support will be required for many years, and we are committed to raising the funds that will enable us to complete our mission.

We hope that you will share our sense of hope and purpose, and that you will join us on our journey to eradicate this devastating condition, and to improve the lives of the individuals and families already affected. By contributing to this program, you are contributing to the beginnings of a project that will deliver enormous long-term benefits.

Early Identification, Screening and Intervention in Autism: Attaining Best Outcomes

A 65 page insert in Pediatrics, hypothesizing that at one year autism is predictable and preventable with intervention. Chaired, but Margaret Bauman, PhD—26 scientists participated in this document—all agreed.

Margaret Bauman, PhD
Chair
The Forum’s Board of Directors

Gleason Eakin, Chairperson, has been actively involved in the autism community since 1997. He co-founded Northwest Autism Foundation (NWAF), was one of the founders of Autism Treatment Network (ATN) and was one of the founders of The Forum. He presently serves on the Oregon Governor’s Commission of Autism. Gleason is a former educator. For fifteen years he was a teacher, counselor and coach at the high school level and was a college administrator for seventeen years, retiring as the Dean of Students. He was one of the founders of three businesses and presently serves on the Board of Directors for two for-profit businesses. He also serves on two non-profit boards, including The Forum.

Sarah Mensah is a member board at NWAF and the head of strategic planning for The Forum.

Sarah is the Director for Strategic Planning for the Jordan brand at Nike. She was formerly the Chief Operating Officer for the Portland Trail Blazers. She has an eight-year-old son with ASD. Sarah is the Vice Chair of the Portland Schools Foundation, she serves on the board of directors of the Urban League of Portland, and she has helped establish a Portland chapter of the National Association of Black Sports Professionals.

Doreen Granpeesheh, Ph.D., BCBA-D is a world-renowned clinical psychologist and expert in the field of autism research and therapy. Her methods have brought about an unparalleled recovery rate, enabling children with autism to lead independent lives. She is the Founder and President of CARD, Inc., one of the world’s largest organizations effectively treating young people on the autism spectrum. She is the 2011 recipient of the American Academy of Clinical Psychiatrist’s prestigious Winokur Award.

David Humphrey, Esq. has devoted tremendous time and energy during the past 11 years to work involving chronically ill children and children on the autism spectrum. He is a member of the national boards of various non-profit organizations including Northwest Autism Foundation (NWAF), The Forum, Autism Society of America (ASA), and the Autism Research Institute (ARI). He co-founded the Autism Treatment Network (ATN), which continues under Autism Speaks and founded the Autism Coalition for Treatment (ACT), which focuses on establishing treatment services globally for individuals with autism and holds international consensus conferences on issues relating to children’s health. He is an attorney and a successful entrepreneur. He is also the President and owner of Kirkman Group, Inc., a group of companies that includes a pharmaceutical/nutaceutical company and an environmental laboratory. He graduated near the top of his class from the University of Washington School of Law.

David Cheveallier, M.B.A. has more than 37 years of expertise in not-for-profit and proprietary business experience. He currently serves as the President and CEO of Easter Seals Oregon, a position he has held since 2002. He has previously been President of TransPacific Management, Inc., and Director of International Operations for Card Capture Services, Inc.—the nation’s second largest ATM network at the time. He has also served as President/CEO of multiple affiliates of Volunteers of America.

John Finnell is a retired business executive and consultant with more than 20 years of experience in China trade, during which he lived briefly in Hong Kong. He also has extensive experience in senior management of companies in the promotional products industry. His interest in youth, education and human potential dates back to his presidency of the Oregon Youth Council in the 1970s and his appointment to the Governor’s Committee on Children and Youth. He lives in Reno, NV.

Frank Rudolph is currently a Private Client Advisor with Private Client Services at Wells Fargo Bank. He has been in the financial services industry for more than 30 years, assisting clients with investment management and personal trust and estate management services. Prior to joining Wells Fargo, Frank worked 22 years at a major financial firm. He has been involved with a number of charitable organizations over his career.

Executive Director of The Forum

John Dehoney is the Executive Director of The Forum, where his primary focus has been to manage all the activities of the foundation, with special emphasis on developing consensus conferences and papers on issues relating to autism treatment. Prior to this, he was President & Executive Director of the Autism Treatment Network (ATN), a nationwide consortium of medical treatment centers. John also served for 18 years as a partner in a California real estate investment management company, where his primary duties were to manage a $200 million real estate portfolio and arrange complex real estate purchases and sales.

Executive Advisor to the Forum

Jonathan Staebler, Esq. has practiced corporation and finance law for 35 years, practicing at Shearman & Sterling, Hoyle, Morris & Kerr and Nexsen Pruet and as in-house counsel for Citicorp Investment Bank and other enterprises. He is a graduate of Princeton and of Columbia Law School.

NWAF Board of Directors

Joe Taylor, Chairman of the Board, has served as the executive director of NWAF from 2001 until 2013. A graduate of the Oregon College of Education, he has over 26 years of experience in the education field and has served as the superintendent of the Boring School district. As Executive director of NWAF, Joe has overseen several Oasis conferences, the Autism Treatment Network and has served as a conduit to the autism community for over a decade.

Sarah Mensah [See The Forum’s Board of Directors]

Robert Fessler has over 35 years of project controls and construction management experience on engineering and construction projects around the world with CH2M HILL. He is currently the director of project controls for NuScale Power. He is the father of three grown children and has a grandson diagnosed on the spectrum with Asperger’s Syndrome. He is the chairman of fundraising activities for Northwest Autism Foundation.

Wayne Hamersly is retired from a successful career in the securities industry spanning over three decades. He was one of the three founders of NWAF and he has served on the board of directors since the organization’s inception. Wayne has also served on many municipal and educational boards in the community.

John DeHoney [See The Forum’s Board of Directors]

David Humphrey, Esq. [See The Forum’s Board of Directors]
Michelle Pardew, Ph.D. is a professor of Special Education as Western Oregon University. She prepares teachers to work with children with ASD. She serves on various local and state-wide educational committees that work to improve education for children with ASD, and she was recently appointed by Oregon’s Governor to serve on the Oregon Commission on Autism Spectrum Disorders. Michelle has a brother with ASD who is in his 50s and she has seen how developments and breakthroughs have changed the lives of those affected with ASD.

Matthew Riley, M.D. is a provider at the NW Pediatric Gastro-enterology Clinic in Portland Oregon. He also runs the Pediatric GI clinic for children with autism spectrum disorders at the Providence Neurodevelopmental Center. He sees children with ASD from birth to 18 years old to help with GI problems.

Beth McShane, Executive Director, Beth McShane is the Executive Director of the Northwest Autism Foundation, where her primary focus is to improve the lives of those affected by Autism and other disorders through the mobilization of resources and by championing innovative solutions. Prior to this position, Beth was the CEO of Charitable Pathways, a viral fundraising platform for nonprofits, as well as Executive Producer of the Miss Oregon Scholarship Program. Beth has spent the last decade creating McShane Media, a boutique social media agency that specializes in promoting local luxury goods and services.

References:


20 Eskenazi B, Rosas LG, Marks AR, et al. Pesticide toxicity and the developing brain. Basic Clin Pharmacol Toxicol 2008; 102:228-236. This study reports findings from a prospective, birth cohort epidemiological study in California. It finds that prenatal exposure to DDT is associated with impairments in neurobehavioral development. It finds also that prenatal exposure to organophosphate pesticides is linked to PDD, a finding that confirms the observation of Rauh et al.


In A Nutshell: 3–7 million attendees per year 24/7 365

- The NWAF Global Conference will be designed to resemble a real-world conference bringing together chat, virtual reality, 3D graphics, and live video. NWAF Global is designed to give attendees sitting at their computers the feeling of really being there. This emerging technology is now being used by many of the largest global companies to discuss complex business topics with thousands of their participants.

- The technology allows the virtual attendees to “enter” a NWAF Global building that can look like any convention center or meeting place. With a click of a button they can enter the conference hall, with a podium and audience, and choose which conference sessions they want to see and participate in. From there they can go to the exhibition floor and enter a booth with reps, signage, collateral demos, and giveaways and prize drawings. There is even a networking lounge where attendees can meet. They can receive a workbook.

- We can translate in 27 languages and hold as many REAL TIME events and conferences as we wish. The NWAF Global™ capacity exceeds 30,000 attendees at once.

Contact:
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Executive Director
Northwest Autism Foundation
503-557-2111
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