# Oregon Bio 2015:

*Expanding the Ecosystem*

# CONFERENCE GUIDE

**Keynotes,**
**Breakout Sessions,**
**and Speaker Biographies**

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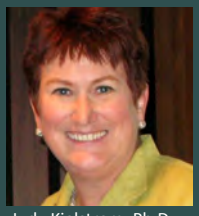
## 2015 CONFERENCE SPEAKERS

Gary Gilliland Ph.D., M.D.
Pres., Fred Hutchinson Cancer Research Center

Wolf Richter,
Co-Founder, President,
EPIC Semiconductors



Judy Kjelstrom, Ph.D.,
Director, Biotech Program at UC Davis

Dan Ledger, Principal,
Endeavour Partners, Digital Health/Mobile Platforms

Cabot Brown, CEO and
Founder, Carabiner LLC

Fred Vogelstein, Author,
Contributing Editor,
WIRED Magazine

Oregon Bioscience Association

#oregonbio2015

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**Dennis M. McNannay**
*Executive Director, Oregon Bioscience Association*

As Oregonians we are rightly proud of our quality of life, however, our bioscience ecosystem has been a work in progress. In the areas of manufacturing supply chain, educated workforce, and research and development, Oregon has been traditionally strong. Now it is time to leverage our current industry momentum to make permanent and lasting improvements to this bioscience ecosystem.

Oregon Bio 2015 highlights the innovative perspectives of nationally respected researchers, innovators and investors while highlighting the opportunities found in Oregon's research and entrepreneurial sectors. To compete with the world's best entrepreneurial ecosystems, Oregon must learn to cultivate innovation and reward the risks these pioneers take.

**Keynote Speakers.** Though representing different aspects of the industry, our keynotes speakers were selected because they "think different." Each has a vision of the future medical, technical and educational innovations that will reshape the industry and stimulate the economy.

**Research Pavilion.** Researchers—from undergraduate students to seasoned research scientists—come together to present the latest work emerging in Oregon's bioscience community. Each academic research poster and emerging company was selected based on their commercialization or investment potential.

**Career Development.** Oregon Bio is leading the way in developing new tools and programs to help the next generation of bioscience workers. This is especially important when helping students meet the professional challenges they will face as they pursue careers outside academia.

**Investors and Entrepreneurs.** This year's Pitchfest's features a pool of innovative bioscience pioneers. In addition to the opportunity to make their pitch before a combined audience of investors, potential partners and bioscience peers, these companies will also be trolling for strategic partners and collaborators.

Our conference has also gained a reputation for offering excellent networking opportunities. Both days feature thematic receptions following the day's conference activities, with the signature Oregon Bio Annual Conference Dinner on Thursday, September 10th.

# Oregon Bio 2015 Conference Schedule

## CONFERENCE DAY ONE

| | | | | |
|---|---|---|---|---|
| 8 - 9:15 a.m. | Registration/Breakfast Networking | | | |
| | Auditorium | | | |
| 9:15 - 9:30 a.m. | Opening Remarks | **Joseph Carroll, Ph.D., Director of Commercialization, OHSU Knight Cancer Institute, Knight Cancer Challenge Update** | | |
| 9:30 - 10:15 a.m. | Morning Keynote | **Gary Gilliland, Ph.D., M.D., President and Director, Fred Hutchinson Cancer Research Center** | | |
| 10:15 - 11:00 a.m. | Coffee/Network/Research Pavilion | | | |
| 11 - 11:45 a.m. | Breakout Session I | Auditorium | Track I | Track II |
| | | **The Value of Health: The economics of saving lives** | Women in STEM | Company Pitchfest |
| 11:45 - 12:15 p.m. | Lunch Pick-up/Networking /Poster Session | | | |
| 12:15 - 1:15 p.m. | Lunch Keynote | **Wolf Richter, Founder and Inventor, EPIC Semiconductors, Holder of 200+ patents and award winning entrepreneur** | | |
| 1:30 - 2:15 p.m. | Breakout Session II | **Cannabis Research: Exploring a new frontier** | Career Path | Company Pitchfest |
| 2:30 - 3:15 p.m. | Breakout Session III | **Oregon Tech Transfer: OHSU, OSU, UP, Etc.** | Career Path | Community Outreach Pres. |
| 3:30 - 4 p.m. | Coffee and Exhibitor/Research Pavilion Break | | | |
| 4 - 4:45 p.m. | Afternoon Keynote | **Judith Kjelstrom, Ph.D., Director, Biotech Program at University of California Davis** | | |
| 5 - 6:30 p.m. | **Day One Reception: Wine on the Willamette** (ticket sold separately) | | | |

## CONFERENCE DAY TWO

| | | | |
|---|---|---|---|
| 8:30 - 9:30 a.m. | Registration/Breakfast Networking/Introductory Remarks | | |
| 9:30 - 10:15 a.m. | Main Ballroom | | |
| | Morning Keynote | **Dan Ledger, Principal and Digital Health Strategist, Endeavour Partners, LLC** | |
| 10:30 - 11 a.m. | Coffee/Networking | | |
| 11 - 11:45 a.m. | Breakout Session I | Track I | Track II |
| | | **The Inside Story: Innovation to incorporation** | PDX Southeast Quadrant: Next bioscience cluster? |
| 12 - 1:15 p.m. | Lunch Keynote | **Cabot Brown, CEO, Carabiner LLC, Investment Banker, International Financier and GW Pharma Board Member** | |
| 1:30 - 2:15 p.m. | Breakout Session II | **Cambia Grove: Driving healthcare innovation** | Policy issues impacting the life sciences economy |
| 2:30 - 3:15 p.m. | Breakout Session III | CEO Roundtable: Oregon's bioscience business climates through the lens of its leaders | |
| 3:30 - 4 p.m. | Coffee and Exhibitor | | |
| 4:15 - 5 p.m. | Afternoon Keynote | **Fred Vogelstein, Author, Contributing Editor, WIRED Magazine** | |
| 5 - 6:30 p.m. | **Day Two Reception: Tapas on the Terrace** (included with Day Two Conference or Keynote Dinner tickets) | | |
| 6:30 - 9 p.m. | **Annual Conference Keynote Dinner** (ticket sold separately) | | |

# Oregon Bio 2015:

*Expanding the Ecosystem*

## Table of Contents


IT'S THE
EVERYDAY
THAT CHANGES
EVERYTHING
We believe in more than the big breakthroughs. And more than the next big thing.
We believe in the day-in day-out work of making science happen. And the millions of little victories — and failures — in between the breakthroughs. Because to us, it's the daily effort of everyday people that changes the future. So we don't stop. We keep working. Every day.
Genentech
A Member of the Roche Group
Jacki, patient

# Conference Keynotes: Day One

## Breakfast Keynote: From World-Class Research to Next Generation Product Development and Back Again

**Speaker:** Gary Gilliland, M.D., Ph.D., President and Director, Fred Hutchinson Cancer Research Center

Few lives remain untouched by cancer. Here in the Northwest, whether patients or their families realize it or not, many of those lives have been touched by the Fred Hutchinson Cancer Research Center. The Hutch has been one of the leading cancer research centers in the world and an essential resource for those involved in the fight against cancer for decades.

Breakfast keynote Dr. Gary Gilliland, whose experience comprises time at Merck Research Laboratories and two decades as a professor of medicine at Harvard Medical School and professor of stem cell and regenerative biology at Harvard University, now leads The Hutch and believes it is essential that researchers understand the importance of translating great research into cancer treatments.

The bioscience industry's success in preventing and curing cancer here in the Pacific Northwest will require scientists, research centers and private industry to embrace and collaborate to cure cancer. For Dr. Gilliland, who serves dual roles as president & director of the Fred Hutchinson Cancer Research Center and Director of the Fred Hutchinson/University of Washington Cancer Consortium, collaboration is a keystone in the fight to cure cancer.

As part of this mission, Dr. Gilliland has developed a deep commitment to the next generation of cancer researchers and the need to expose them to the commercial development process in order to bring academia and commercialization into an increasingly close-knit partnership. Dr. Gilliland brings a unique perspective, having worked in every facet of the commercialization process.

## Lunch Keynote: A Trip Through the Innovative Mind of a World Class Inventor and Entrepreneur

**Speaker:** Wolf Richter, President, EPIC Semiconductors

Grab your lunch, fasten your seatbelts and prepare yourself for innovation turbulence as we take a ride through the exceptional mind of Wolf Richter. With over 200 patents to his name and as the recipient of both the German Economy Award for Best Innovation and the Ernst & Young Entrepreneurship Award, there are very few individuals today who have proven to be more creative or entrepreneurial.

Mr. Richter's latest discoveries involve nanoCloudProcessors (nCPs), which power themselves from conductive surfaces—like polymers, rubber and even human skin. nCPs have the potential to impact a wide array of fields including digital health. Modern integration technologies will allow scientists to transform material into computerized machines—virtual bio-medical assistants on a nano scale. Designed to support innumerable medical tasks—from vital signs monitoring, to care monitoring, to biochemical analyses, to "lab-on-a-chip", to drug delivery, to body patches, to checking allergic reactions or infections, up to body implants—nCPs are driven by "Inherent Artificial Intelligence" (**IAI**). As such, they require neither programming nor batteries, which use a built-in energy harvester that answers the greatest challenge of nano electronics. EPIC's nCPs have unique sensing features, utilizing integrated sub-circuits, which "feel" the sensitivities of a patient and are capable of monitor handling and sterilization of medical instruments, or alerts for germ-rigged zones; nCPs can check and log medication doses and intervals, or control apnea and incontinence and resulting infection risks.

Regardless of your professional interests, the innovation economy demands all of us to better understand and anticipate how breakthrough technologies will reshape even the most static and conservative healthcare market. A frequent keynote speaker, Mr. Richter's presentation style is both scientifically intriguing and entertaining, featuring a live demonstration you won't want to miss.

## Afternoon Keynote: In Search of Opportunities—The 21st Century Ph.D. Reality

**Speaker:** Judith Kjelstrom, Ph.D., Director, Biotech Program at University of California, Davis

The promise of a job in academia has dropped to 10% over the last decade, just as an increasing numbers of Ph.Ds. complete their training and enter the workforce. At the same time, just as the economy shows improvement and reports of demand for workers flood the media, increasing numbers of students, particularly those with hard-won Ph.D.'s, struggle to find jobs.

This new professional reality has left many people wondering, "What's the next step for many of today's best and brightest minds?" The answer to this question, together with the more pressing question of where these highly trained, capable graduates can expect to find work, is subject of Dr. Kjelstrom's passion. As the director of the Biotech Program at UC Davis, Dr. Kjelstrom matches students with industry leaders in the Bay area biotech world; through industry internships, required of every Ph.D. student prior to graduation, Dr. Kjelstrom's students are exposed to and prepared for opportunities outside academia, working closely with researchers and innovators whose work is on the cutting edge. During her talk, Dr. Kjelstrom examines how post doctoral and graduate students, who have spent years training to enter academic positions, can bridge the gap and find professional and financial satisfaction working outside academia.

# Conference Keynotes: Day Two

### Breakfast Keynote: The Future of Digital Health: From Current Gadgets to Future Breakthroughs

**Speaker:** Dan Ledger, Principal, Endeavour Partners LLC

The digital healthcare market is one of the fastest growing sectors, holding the promise of changing the way traditional healthcare is delivered. It appears, however, that reaching this new paradigm will require many hard choices—and technology will probably be the easy part.

Tomorrow's digital health solutions will not only have to balance cost, security, privacy, and convenience, all while improving patient satisfaction, but they will also be required to empower more patients to receive their care at home. As a principal at Endeavour Partners, with expertise in both digital health and semiconductors, Dan Ledger has made a career out of identifying, studying, and predicting important industry trends. In the case of digital health, Mr. Ledger will present a long-term vision regarding how digital health will develop in the coming years—moving beyond the gadgets of today to the digital health infrastructure of tomorrow.

### Lunch Keynote: Next Generation Healthcare Investing in a World Without Boundaries

**Speaker:** Cabot Brown, Chief Executive Officer, Carabiner LLC, and Board Member, GW Pharmaceuticals

Today's capital markets are not constrained by boundaries, industry categories or even traditional methodologies. Today's capital flows seamlessly into and out of global opportunities as innovative trends emerge and old technologies are eclipsed. No one is more aware of the risks and opportunities of this new financial world than Cabot Brown.

Mr. Brown has advised dozens of healthcare companies in more than $2 billion of transactions with particular expertise in medical devices, diagnostics, biopharmaceuticals and life science tools. By combining traditional financial and analytical skills with a willingness to take contrarian risk, Carabiner LLC is well positioned to take advantage of new medical discoveries. Carabiner's investment in GW Pharmaceuticals PLC, based in the UK, concerns the current deployment of a cannabinoid-based drug for treatment of epilepsy and demonstrates the firm's commitment to remaining on the frontier of emerging science.

*Note: Attendees interested in learning more about cannabis-related issues may be interested in attending Fred Vogelstein's Afternoon Keynote. Also of interest, Dr. Nephi Stella's Day One presentation "Cannabis Research: Exploring a New Medical Research Pathway."*

## Afternoon Keynote: Cannabis: When the "High" Comes from Treatments and Cures, Not Joints

**Speaker:** Fred Vogelstein, Contributing Editor WIRED magazine, Author of "Dogfight: How Apple and Google went to war and started a revolution"

What do you do when the only medicine that might save your child's life is untested, unproven, and also illegal? That's the dilemma Fred Vogelstein and his family faced back in 2012. For seven years, an intractable form of absence epilepsy had been wrecking their 11-year-old son Sam's life. They'd tried more than two-dozen medications and other treatments without success. Unless he was on dangerously high doses of corticosteroids, Sam would average 10 seizures an hour all day long. Out of options, they'd heard a compound in cannabis called CBD or cannabidiol might help.

CBD is not psychoactive. THC (tetrahydrocannabinol), on the other hand, is the compound in cannabis that get's you high. But buying CBD back in 2012—even in California—was next to impossible. Cannabis, the plant, was available everywhere, if they wanted to get Sam high. CBD on its own, chemically separated from the plant, was almost nowhere in the U.S. The Drug Enforcement Agency (DEA) still considers both CBD and anything connected to cannabis to be as dangerous and illegal as heroin.

Outside London, however, GW Pharmaceuticals was legally making CBD by the ton as part of another medicine. The Vogelsteins reached out to the CEO, asked if they could come to London to have Sam try CBD, and hoped that if it worked, they could convince their doctor, her hospital—UCSF, the FDA and the DEA to let them import the medicine into the U.S.

The result? Beyond almost curing Sam, the success of CBD prompted GW to begin trials of a new epilepsy medication, Epidiolex, in the U.S. Doctors are already observing that Epidiolex may turn out to be a once in a generation drug—not just for seizures but for other neurological ailments too. More than 1,000 kids at roughly four-dozen hospitals in the U.S. and UK are now testing Epidiolex for epilepsy. It has a Fast Track designation from the FDA and could be available at U.S. pharmacies inside three years.

The story of this journey and what it says about our laws and social norms around cannabis is the subject of Fred Vogelstein's riveting piece in the July issue of Wired Magazine. As the final keynote at Oregon Bio 2015, Fred will not only explore in detail what it took to complete this yearlong quest, but he will also investigate why, given all we have known scientifically about cannabis for a long time, it didn't happen sooner.

*Note: Attendees interested in learning more about cannabis-related issues may also be interested in attending Cabot Brown's Lunch Keynote. Also of interest, Dr. Nephi Stella's Day One presentation "Cannabis Research: Exploring a New Medical Research Pathway".*

# Conference Breakout Sessions: Day One

## TRACK ONE

### Breakout Session I: The Value of Health: The Economics of Saving Lives

**Speaker:** Vivian Herrera, D.D.S., M.P.H., Director, U.S. Health Economics and Outcomes Research, Novartis Pharmaceuticals Corporation**;** Christopher Ward, President, Ward Health Inc.

What does or should innovation cost? Take a simple but profound 20th century innovation: the vaccine. How many lives have been saved in pursuit of this strategy of preventable care? How many diseases or hospitalizations or infectious disease spreads have been prevented?

This and myriad medical advancements are part of the evolving health care system that has traditionally recognized and rewarded risk-taking. After all, the science of drug or device development is long, complex and, many would agree, too costly. As researchers tackle the most intractable diseases and develop treatments with more precision and genomic knowledge, they work daily on meeting the unique needs of individual patients.

It's a story of the 12s: The cost of medicines in the whole health care dollar averages just 12 cents. And, just 12 percent of medicines that enter clinical trials ever make it to patients; for some diseases the odds of success are even lower.

This is the backdrop for the current push for an often contradictory set of mandates: performance-based metrics, calls by state legislature for cost transparency, the changes brought on by the Affordable Care Act, value-based pricing regulations, pressure to increase cost cutting measures and narrowing markets due to regulatory and compliance issues.

In this presentation, the speakers will also look at when value-based pricing might work and what happens when long-term cost offsets are not realized by the payer.

Come hear these seasoned experts discuss the nuances of health economics, outcomes research and the global pressures coming down on all sides of this debate.

### Breakout Session II: Cannabis Research: Exploring a New Medical Research Pathway

**Speaker:** Nephi Stella, Ph.D., Professor, University of Washington, Department of Pharmacology, Psychiatry and Behavior Sciences, and Founder, Stella Therapeutics

Known as the "Green Rush", Colorado's marijuana legalization has already begun contributing significant tax dollars to the state's economy. Whether for recreational use or medical research, the influx of dollars into this exciting new market is long overdue for researchers like Dr. Nephi Stella. Dr. Stella has spent the last 20 years researching the therapeutic value of cannabinoid-based drugs for the treatment of various disease of the brain, including brain cancer, memory impairment, epilepsy and Huntington's disease. In order to understand the mechanism of action of cannabinoid-based drugs and the biological function of eCB signaling under healthy and disease states, Dr. Stella's laboratory leverages pharmacological and genetics approaches applied at the molecular, cellular and preclinical levels.

This presentation also profiles the transition from lab to commercialization. As an entrepreneur, researcher and professor, Dr. Stella has ambitiously pursued his passion to apply cutting edge research to develop cannabinoid-based cures and treatments. Based on his research Dr. Stella founded Stella Therapeutics, a privately held drug discover company, in 2011. This presentation also profiles the transition from lab to commercialization

The company is currently developing novel chemical entities (ST drugs) that could strike Glioblastoma Multiforme (GBM), the most common and deadliest malignant brain tumor, tumor cells at several levels: initially blocking the migration and proliferation of tumor cells, and then selectively killing them through the induction of programmed cell death

(apoptosis) via a novel mechanism of action. ST drugs are based on the rational modification and optimization of the therapeutic qualities carried by cannabinoid-based compounds.

*Note: Attendees interested in learning more about cannabis-related issues may also be interested in attending both Cabot Brown's Lunch Keynote and Fred Vogelstein's Afternoon Keynote, both taking place on Day Two.*

### Breakout Session III: Oregon Technology Transfer: What's New at OHSU, OSU and UP?

**Speakers:** Peter Rachor, Director, Entrepreneurship and Innovation, University of Portland; Brendan Rauw, Vice President, Technology Transfer and Business Development, Oregon Health & Science University; Brian Wall, Assistant Vice President for Research, Commercialization, and Industry Partnerships, Oregon State University

There are very few certainties in medical research, but it's a safe bet that almost all journeys—from the bench to the bedside—will at some point involve a tech transfer professional. Perfectly positioned to monitor and assess the commercial viability of the valuable research being conducted across the United States, these professionals provide an essential link between academic breakthroughs and commercial opportunity. This job is made more difficult by the internal pressures and shifting prioritizations that are a natural part of academic institution. However, for those fortunate innovations that are identified and nurtured, tech transfer can be one of the most valuable resources an academic entrepreneur can leverage. From intellectual property and licensing opportunities to access to facilities and grant writing advice, tech transfer professionals set the stage for long-term commercial success.

## TRACK TWO

### Breakout Session I: Women in Science: Mentoring, Networking and the Work/Life Balance

**Speakers:** Gillian Bunker, Ph.D., J.D., Patent Attorney, Schwabe, Williamson & Wyatt; Jennifer Fox, Ph.D., Executive Director at OTRADI & OTRADI Bioscience Incubator; Judith Kjelstrom, Ph.D., Director, Biotech Program at University of California, Davis; J. Louise McGinnis Barber, CPSM, Vice President Strategic Development, HC Structural Engineering, Inc. & board member, San Francisco Commission on the Status of Women; Kate Ryan, Ph.D., Life Science Business Development Consultant, Ryan Consulting Group

As the number of Ph.D. graduates seeking employment outside academia continues to rise, it has become increasingly apparent that women, in particular, face additional hurdles in pursuing their professional goals. With the direction of moderator Jennifer Fox, Ph.D., panelists will explore the importance of networking—where to network and how to find the right network for you. Of equal, or perhaps even greater importance, learn how mentors and advisors, who understand the unique challenges women face after graduation, can help and guide you through the process. Panelists will also discuss important steps that, when taken prior to graduation, can increase the likelihood future job candidates will find employment. Finally, attendees will have the opportunity to pose their own questions—from determining how to create a healthy work/life balance to exploring the vast array of opportunities that exist outside academia.

### Breakout Session II: Careers in Translating Research from Academia to Industry

**Speakers:** Travis Cook, MS, MBA, Senior Technology Development Manager, OHSU; Anke Mulder, PhD, Research Assistant Professor, OHSU and former Director of Research and Development, NanoImaging Services; Trish Pruis, PhD, Alliance Manager, OHSU; Erik Tucker, PhD, Co-founder and Chief Operations Officer, Aronora

Doctoral graduates intending to leave academia commonly seek employment in industry, whether a small startups or a large pharmaceutical company. For the academic, transitioning to industry can lead to culture shock due to a lack of familiarity with the business of science. With the direction of moderators Sarah Biber, Ph.D. and Michael Matrone, Ph.D., panelists will explore the business side of science and how to effectively transition from academia to industry. Learn the importance of networking—where to network and how to find the right network for you. Panelists will also discuss important steps that can increase the likelihood future job candidates will find employment. Finally, attendees will have the opportunity to pose their own questions in exploration of the vast array of opportunities that exist in industry.

### Breakout Session III: Careers in Careers in Communication, Law, Outreach, and Policy

**Speakers:** Marcie Colledge, PhD, Co-founder, Yellow Scope: Science Kits for Girls; Jennifer Fox, PhD, Executive Director, OTRADI and OTRADI Bioscience Incubator; Devon Z. Newman, MS, JD, Attorney, Schwabe, Williamson, & Wyatt

Doctoral graduates seeking employment are often unaware of the multitude of non-academic and non-industrial career options available to scientists. Many do not realize that the skills acquired in scientific training are transferable to a multitude of career sectors. With the direction of moderators Sarah Biber, Ph.D. and Michael Matrone, Ph.D., panelists will explore just a few of these career paths, such as patent and intellectual property law and education outreach. Learn the importance of networking—where to network and how to find the right network for you. Panelists will also discuss important steps that can increase the likelihood future job candidates will find employment. Finally, attendees will have the opportunity to pose their own questions in exploration of the vast array of opportunities that exist outside academia and industry.

## TRACK THREE

The Oregon Bio 2015 PitchFest brings together digital health, diagnostics, drug development and cannabis as entrepreneurs showcase the cutting edge medical and technological innovations currently emerging here in the Northwest. Bringing together potential partners and investment opportunities, this year's PitchFest entrepreneurs promise to deliver the latest technology currently emerging in the bioscience sphere.

### Breakout Session I: **PitchFest**

Presenting Companies in Digital Health

- Health123
- Insta Aide
- MotioSens
- Sightworks
- vdointerpreters

### Breakout Session II: **PitchFest**

Presenting Companies in Emerging Bio

- AbSci
- CBD Pharma
- Easy Diagnostics
- Elex Biotech

### Breakout Session III: **Collaborating with Communities: Opportunities for Partnership**

**Speakers:** Jackilen Shannon, Ph.D., RD, MPH, Associate Professor, OHSU; Kerri M. Winters-Stone, Ph.D., Research Professor, OHSU

Dr. Shannon and Dr. Winters-Stone provide an overview of opportunities for working with and in communities to conduct research and translate evidence to practice. Community-engaged research and implementation requires a process of building relationships, trust, and relevance with people in communities and the organizations that serve them. A brief overview will be given of the Knight Community Partnership Program that provides funds to communities wishing to address a cancer-related need and the Knight Cancer Prevention and Control scientific program that has faculty conducting population-based and community-engaged research.

# Conference Breakout Sessions: Day Two

## TRACK ONE

### Breakout Session I: The Inside Story: Innovation to Incorporation

**Speakers:** David Schaffer, Ph.D., Professor of Chemical and Biomolecular Engineering, Bioengineering, and Helen Wills Neuroscience Institute at University of California, Berkeley

So…you want to be a businessman and a scientist? In practical terms, the scientist/entrepreneur is a rare breed. Whether the decision to separate these roles is made by outside investors or the scientist, the path to company development usually involves the reassignment of the original scientist to a subordinate management role. In this regard, Dr. David Schaffer, founder and CSO of 4D Molecular Therapeutics, is an anomaly. The success of his company demonstrates the value of complementary skill sets. Together with co-founder David Kirn, M.D., Dr. Schaffer was able to bring together deep expertise in bioengineering, vector discovery, virology, product design, product development, clinical trials, regulatory affairs, business development, management and entrepreneurship. Both have spent over 15 years in the gene therapy and viral vector therapeutics field, but they focused on different ends of the R&D spectrum. While Dr. Schaffer focused on basic scientific innovation and vector discovery technologies, his colleague focused on product design, clinical R&D, biotech entrepreneurship and business development. Together, true synergy was possible.

### Breakout Session II: Cambia Grove: Driving Healthcare Innovation

**Speakers:** Nicole Bell, Founder and Executive Director, The Cambia Grove; Ky Calder, Angel Investor; Joe Piper, Managing Director, Point B Capital

From Starbucks to Microsoft, Seattle has a long-standing tradition of industry shifting innovation. It should surprise no one that the next big thing in healthcare technology incubation would find its roots in Seattle. What would probably surprise many is the diverse and often competitive stakeholders Cambia Grove has managed to unite. Bound by a common cause, to lower healthcare and improve patient outcomes, Cambia Grove represents a unique neutral playing field for entrepreneurs to audition their innovative products and services to investors, insurers, healthcare systems, specialty providers and policy makers. Without such access and input, the entrepreneur is left to his own devices to get real world feedback. Seasoned entrepreneurs immediately recognize the value of the fast track vetting process, which allows them to rapidly change course to address customer feedback. The question is: Can Cambia Grove expand to be a regional partner? Come learn how Portland can best leverage this new partner?

**Breakout Session III: Executive Roundtable: Oregon Through the Lens of Its Business Leaders**

**Speakers:** Bernard Fox, Ph.D., Co-Founder/President/CEO, UbiVac; Juergen Lindner**,** General Manager, Micro Systems Engineering, Inc.; Larry Sanders, Vice President and General Manager of Technical Operations, Genentech in Hillsboro

Is the grass really greener on the other side of the state border? Ask any businessperson what it's like to do business in their state, and they'll probably sing a similar song of woe. And of course, threaded into their opinion will be an interesting mix of truth, fact and personal prejudice. So how would an unbiased observer evaluate Oregon's business climate, and what changes would they recommend in an effort to stimulate growth?

These panelists have been chosen because, in each case, they bring a local, regional, and international perspective to validate their opinions. From Genentech's perspective as a publicly traded, multi-national corporation and Micro Systems Engineering, Inc.'s position as an international privately held device manufacture to UbiVac's worldwide mission to partner and collaborate with a broad spectrum of pharmaceutical companies, these panelists are in a unique position to judge the strengths and weaknesses of Oregon's unique business environment. In order to fulfill Oregon Bio's mandate to help grow the bioscience industry, it is critical that we all learn from a dispassionate analysis of our international competitors.

## TRACK TWO

### Breakout Session I: Portland's Inner Southeast Quadrant: Next Bioscience Cluster?

**Speakers:** Matt Miller, Vice President of Regional Expansion, Greater Portland Inc.; Adrian Polliack, Ph.D., Chief Operating Officer, Modern Edge, Inc.; Heather Stafford, Assistant Director of Innovation and Entrepreneurship, Business Oregon

Oregon's increased mergers and acquisitions activity, Genentech's planned $125M expansion, the success of the Knight Cancer Challenge—all these factors point toward the overall growth and success of the bioscience industry. However, many skeptics continue to believe that Portland's life sciences industry still lacks the critical industry mass to constitute a legitimate economic cluster. Without getting into the theoretical debate about what constitutes a viable economic cluster, it is clear to most unbiased observers that Portland is approaching a significant bioscience inflection point. This panel will share the progress made so far by Oregon Bio's Inner Southeast Quadrant taskforce in calling attention to the unique economic development opportunity to link OHSU's world class medical research facilities with one of Portland's last underutilized tracts of urban industrial land. Come learn about the opportunities emerging on the Willamette.

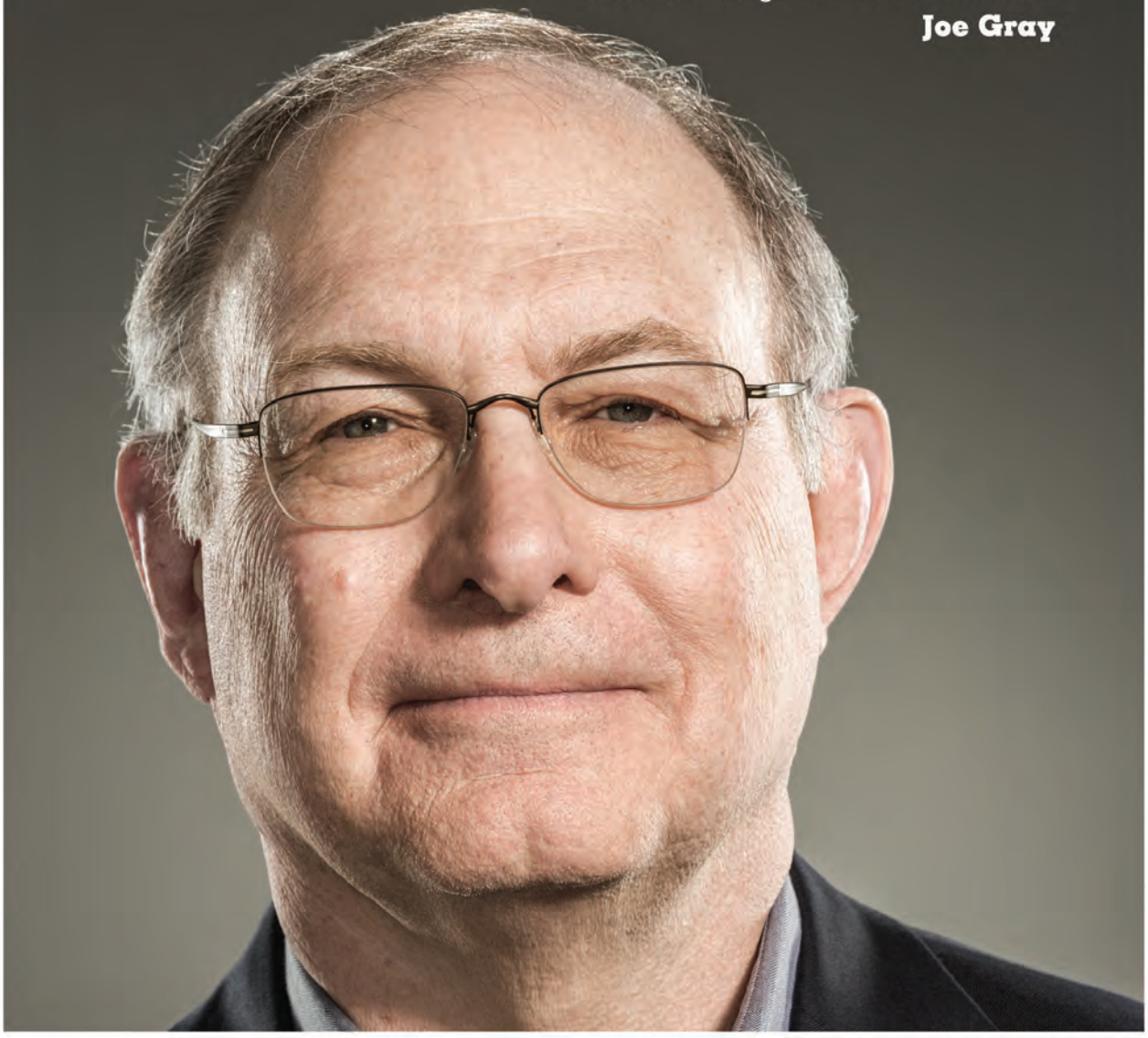
### Breakout Session II: Policy Issues Impacting the Life Sciences Economy

**Speakers:** Brian O'Connor, Director, Alliance Development, Grassroots Advocacy, Biotechnology Industry Association (BIO); Ritchard Engelhardt, State Director of Government Affairs, Biotechnology Industry Organization (BIO)

In the same way that interest rates drive the real estate markets, it can be said that politics rules life sciences. With government being both the largest consumer of healthcare and the ultimate regulators of these product markets, no life science executive can ignore the implications and the importance of the political process. Unfortunately, very few companies have the resources to fully engage in the political debate or preemptively influence its decision making process. Even Oregon Bio relies on the expertise of our parent organization, BIO, as we work to influence local decisions. Each year, we benefit from the expertise of BIO representatives as we craft our own local political strategies. This is a must-attend panel for any company that expects to be adversely impacted by the political process or hopes to influence regulatory or reimbursement policy.

# When I grow up, I'd like to be a scientist who cures cancer.

*Internationally renowned cancer and genomic researcher*
**Joe Gray**



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# Speaker Biographies (Alphabetized)

## Nicole Bell, Co-Founder and Executive Director, Cambia Health Solutions Director Business Development and Strategic Partnerships Direct Health Solutions

Nicole Bell is a co-founder of Cambia Grove and its executive director. She brings strategic real-world experience from successfully leading change in the health care delivery and payor sectors that have proven invaluable to Cambia Grove partners and participants. Alongside her Cambia Grove leadership role, Nicole is also responsible for expanding Cambia Health Solutions' portfolio by facilitating business development opportunities with health plans and other key stakeholders. Ms. Bell joined Cambia in April 2008 and led the development and implementation of transformative provider reimbursement initiatives, including accountable care organizations and an award-winning intensive outpatient care medical home program. In 2012 she began supporting Cambia's investment portfolio.

## Cabot Brown, Chief Executive Officer, Carabiner LLC, Board Member, GW Pharmaceuticals

Cabot Brown has served as a Non-Executive Director for GW Pharmaceuticals since February 2013. Mr. Brown, who has over 25 years of experience in the financial industry, is the Founder and Chief Executive Officer of Carabiner LLC, an advisory and private equity firm based in San Francisco and London that specializes in health care and education.

Previously, Mr. Brown served as a Managing Director at GCA Savvian Group Corp., an international financial advisory firm, from 2011 to 2012 where he directed the firm's efforts in the health care industry. Before joining GCA Savvian, Mr. Brown worked for ten years at Seven Hills Group, an investment banking group he co-founded where he also directed the firm's health care activities. He was also Managing Director of Brown, McMillan & Co., an investment firm he co-founded that sponsored buy-outs and venture capital investments.

## Gillian Bunker, J.D., Ph.D., Schwabe, Williamson & Wyatt

Dr. Gillian Bunker is an experienced patent attorney whose practice focuses on the preparation, prosecution, and commercialization of U.S. and foreign utility and design patents. Assisting start-ups, established companies, universities, and other research institutions, Dr. Bunker provides advice ranging from patent procurement and protection, to due diligence analyses (patentability, infringement, freedom to operate), technology transfer, licensing, and strategic planning/counseling. She handles a variety of technologies, including mechanical devices, medical devices, biotechnology, pharmaceuticals, and chemistry.

Prior to earning her law degree, Dr. Bunker completed her doctorate in neuroscience at OHSU. She is active with the Schwabe, Williamson & Wyatt Intellectual Property Legal Clinic, providing pro bono legal services to economically disadvantaged individuals and small/emerging businesses. When non-lawyers ask about IP law, she has a ready answer: "I tell them I help inventors protect their inventions."

## Marcie Colledge, Ph.D., Co-founder, Yellow Scope: Science Kits for Girls

Dr. Marcie Colledge has a Ph.D. in neuroscience from the University of North Carolina at Chapel Hill and an undergraduate degree in Human Biology. She was a principal investigator and ran her own research laboratory as a tenure-track professor at the University of Texas, Southwestern Medical Center. She has more than 15 years of research experience studying the brain and nervous system, designing and carrying out experiments at the laboratory bench, writing grants, publishing her scientific research in peer-reviewed journals, and presenting her research at academic conferences. She also has over 10 years of teaching experience, in both formal and informal settings—from leading courses for undergraduate and medical students, to mentoring students in the lab.

### Travis Cook, MS, MBA, Senior Technology Development Manager, Technology Transfer and Business Development (TTBD), OHSU

Travis is currently a Senior Technology Development Manager in TTBD. Mr. Cook is a cross-functional, international business development professional with experience in managing, negotiating, and closing early-, late-, and commercial-stage definitive agreements. He is a co-inventor on seven patent applications and is a co-author of several peer-reviewed publications, including a case study in the management textbook, *Building a Case for Biotechnology*. Prior to joining TTBD, Mr. Cook was the Director of Business Development at Galena Biopharma, Inc. (Nasdaq: GALE) and has held appointments at OHSU, Kalypsys, Inc., Ansata Therapeutics, Inc., and Mixture Sciences, Inc.

### Ritchard Engelhardt, State Director of Government Affairs, Biotechnology Industry Organization (BIO)

Ritchard Engelhardt serves as the State Director of Government Affairs for BIO, the world's largest trade association representing biotechnology companies, academic institutions, state biotechnology centers and related organizations, in the Northeast and Western United States. Before joining BIO, Engelhardt led the public policy and government affairs team at BayBio, the regional trade association for the life sciences in the San Francisco Bay Area. He also managed state government affairs nationally for Becton Dickinson & Co. out of Washington, DC and worked for the California Healthcare Institute in their Sacramento office. Prior to joining the life sciences community, Engelhardt served as a Senate Fellow and legislative aide for former California state senator Elaine Alquist (D-Santa Clara), who chaired the Senate Health Committee. He has lobbied on behalf of industry in numerous states, managed lobbyists, advised policy makers, staffed legislation and participated in hearings on topics including drug pricing, GMO labeling, extended producer responsibility, healthcare reform, tax restructuring, and regulatory oversight.

### Bernard Fox, Ph.D., Co-Founder, President and CEO, UbiVac; Harder Family Endowed Chair for Cancer Research; Member and Chief, Molecular and Tumor Immunology, Robert W. Franz Cancer Research Center, Earle A. Chiles Research Institute, Providence Cancer Center

Dr. Fox was part of the team that performed the first-in-human studies of genetically-modified cells (NCI) and was an investigator on the first clinical trial to genetically modify tumors in patients (U of M), the first gene therapy trial for HIV/AIDS (U of M) and the first trial of gene-modified tumor vaccines in Oregon. Dr. Fox helped develop the tumor immunology training programs between the Earle A. Chiles Research Institute and both Xi'an Jiaotong University, Xi'an, China and the Ludwig-Maximilians-University, Munich, Germany.

Dr. Fox is also an entrepreneur. Founded in Portland, Oregon in 2005 as a spin-out of the Robert W. Franz Cancer Research Center within the Earle A. Chiles Research Institute, at Providence Portland Medical Center, UbiVac continues to build upon the groundbreaking research being developed in the region. In 2011, UbiVac in cooperation with Oregon Health & Science University created UbiVac-CMV Inc., to license a disabled cytomegalovirus (CMV) vector technology for use as a vaccine. This technology is actively being developed in collaboration with our research partners.

### Bernard A. Fox III, MBA, Chief Financial and Operating Officer, UbiVac

Mr. Fox serves as UbiVac's chief financial and operations officer. He has been involved with the company since before its inception in 2005 and helped devise the business strategy to further develop the DRibble technology. Additionally, Mr. Fox serves as a consultant for biotech startups and has been involved with advising other small businesses. In 2011 he helped found Revcaster, serving on its board until early 2015 when it was sold, having generated a 36x return to investors in a little more than three years.

## Jennifer Fox, PhD, Executive Director, OTRADI and OTRADI Bioscience Incubator

Dr. Jennifer Fox is the Executive Director of the Oregon Translational Research and Development Institute (OTRADI) and the OTRADI Bioscience Incubator (OBI). OTRADI is a state-funded nonprofit that advances bioscience research, commercialization and business incubation in Oregon. The OBI is Oregon's first and only bioscience-specific incubator.

Dr. Fox joined OTRADI as one of its founding scientists in 2008. She established OTRADI's high-throughput screening laboratory and helped to create and grow OTRADI's scientific mission. In 2009, Dr. Fox was appointed Assistant Director of OTRADI. In this role, she gained invaluable business and economic development experience, not only through managing OTRADI's scientific projects and finances, but through working directly with bioscience researchers and companies to write small business grants and develop new projects with commercialization as an overall goal. Dr. Fox has been instrumental in helping OTRADI maintain state funding through ongoing grants from the Oregon Business Development Department. In addition, she served as one of the main authors of the successful Economic Development Administration (EDA) i6 Challenge Grant awarded to OTRADI, ONAMI and Oregon BEST.

## Gary Gilliland, M.D., Ph.D., President and Director, Fred Hutchinson Cancer Research Center

Dr. Gary Gilliland, President and Director of the Fred Hutchinson Cancer Research Center, is an expert in cancer genetics and precision medicine who has devoted his life to finding better treatments and cures for diseases.

Dr. Gilliland, who holds a Ph.D. in microbiology as well as a medical doctorate, spent 20 years on the faculty at Harvard where he was professor of medicine at Harvard Medical School and professor of stem cell and regenerative biology at Harvard University. He was also an investigator at the Howard Hughes Medical Institute, the director of the leukemia program at the Dana-Farber/Harvard Cancer Center and has earned numerous honors for his work. The bulk of his initial work at Harvard focused on the genetic basis of blood cancers.

Following 20 years on the faculty at Harvard, Dr. Gilliland, joined Merck Research Laboratories as the senior vice president and global oncology franchise head. While at Merck, where he learned how to "take a good idea and turn it into a cancer treatment," Dr. Gilliland and the Merck team brought an immunotherapy cancer drug called lambrolizumab (Keytruda) to market in record time, from first human trials in 2011 to FDA approval in 2014.

Upon taking the helm as Fred Hutch's president and director on Jan. 2, 2015, Dr. Gilliland remarked, "This is the perfect time and perfect place to develop curative approaches for cancer. Everything I've done in my career has pointed here."

## Vivian Herrera, D.D.S., M.P.H., Director, U.S. Health Economics and Outcomes Research, Novartis Pharmaceuticals Corporation

Vivian currently heads the Health Economic and Outcomes team for Immunology and Dermatology as well as Neuroscience at Novartis. She has multiple publications and presentations on Medicare, Diabetes, Cardiovascular, Immunology and Dermatology and Neuroscience therapeutic areas.

After completing her Dental degree at Colegio Odontologico Colombiano, Vivian Herrera furthered her education, earning a dual masters degree at Columbia University in Public Health and International Affairs. She worked for 11 years on the payer side at Medco currently known as Express scripts in the Advanced Clinical and Science Research team. In her role there she worked on various retrospective and prospective studies in support of various corporate strategic initiatives. Her work was instrumental in identifying gaps and improving the diabetes and depression health programs. E-prescribing and physician detailing were successful initiatives with the help of Vivian's predictive and regression models on patient and physician behavior. More recently she moved to the pharmaceutical industry working first for Sanofi in the Global Evidence and Value Development team where she managed the analytic team for Rare Diseases and Multiple Sclerosis and now serves at Novartis Pharmaceuticals.

## Judith Kjelstrom, Ph.D., Director, Biotech Program at University of California, Davis

As director of both the UC Davis Biotechnology Program, a special research program in the Office of Research and the Advanced Degree Program for corporate employees, Dr. Kjelstrom brings a comprehensive understanding of the challenges and rewards involved in transitioning from academia to the private sector.

Dr. Kjelstrom also serves as co-director of the Howard Hughes Medical Institute-Integrating Medicine into Basic Science Graduate Training Program and as program coordinator for both the NIH T32 Graduate Training Program in Biomolecular Technology and the innovative Designated Emphasis in Biotechnology graduate program, which requires that all students complete a three to six month industrial internship prior to graduation. More than 260 Ph.D. students from 30 different graduate programs have successfully completed this rigorous program.

Recently, Dr. Kjelstrom became the director for the Biotechnology Industry internship component of a new NIH Director's BEST grant, entitled FUTURE—Frontiers of University Training to Unlock the Research Enterprise. Dr. Kjelstrom oversees numerous summer technical short courses in cutting edge scientific techniques for graduate students, industry scientists and faculty.

## Dan Ledger, Principal, Endeavour Partners LLC

Dan Ledger is a Principal at Endeavour Partners. Since joining in 2011, he has helped clients across the spectrum of mobile and digital business, directing numerous engagements focused on strategy and innovation management.

Prior to joining Endeavour, Mr. Ledger worked in the semiconductor industry in marketing and engineering management roles, and was also an engineer at Analog Devices. During this time, he developed deep expertise in Digital Signal Processors (DSPs) and Embedded Processors, and many of the fundamental building blocks used in modern mobile applications. He also provided design services to hundreds of different original equipment manufacturers in North America and in China, where he worked for four years. While in China, Mr. Ledger worked closely with several infrastructure equipment providers as well as device manufacturers including Huawei, ZTE, Datang Mobile, Flarion, and Airvana on next generation base-station and device implementations.

Mr. Ledger holds a Masters degree from the Massachusetts Institute of Technology and a dual bachelors degree from Washington University in Electrical Engineering and Computer Engineering.

## J. Louise McGinnis Barber, CPSM, Vice President Strategic Development, HC Structural Engineering, Inc.

Louise McGinnis Barber currently serves as the Vice President of Strategic Development for HC Structural Engineering and directs growth strategies, business development and marketing activities for the West Region for multiple vertical markets, including science and technology, civic, commercial, mission critical and higher education. Prior to this, Ms. McGinnis served as the Western Region Director for HDR, a global architecture and engineering firm for eight years in the realm of science and technology and global health.

Ms. McGinnis is actively involved numerous industry and community organizations including the board of Leadership California, SCUP Pacific Regional Council Sponsor Chair, SF RECON Board of Directors, IPI Aviation and Vertical Committees, the board of Friends of the SF County Commission on the Status of Women, and the Conference Committee for Oregon Bio. During her tenure with numerous firms over the years she has been a champion of women's rights and creating an equitable workplace, leading public forums encouraging young girls to advance into STEM education and serving as a mentor for various youth and industry professionals for over 22 years.

## Matt Miller, Vice President of Regional Expansion, Greater Portland Inc.

In his role as Vice President of Regional Business Expansion, Mr. Miller facilitates opportunities for job growth within Greater Portland Inc.'s Global Trade and Investment Plan; supports communities and partners' outreach to the region's largest traded-sector companies to uncover possibilities for expansion; researches and targets users for the region's large sites; and partners with the Small City Consortium members to improve local competitiveness and readiness for projects looking to expand.

Most recently, Mr. Miller served as Vice President of Business Development at the Greater Phoenix Economic Council, where he facilitated corporate expansions leading to the creation of more than 1,300 traded industry jobs, $1.6 billion in real and personal property investment and the absorption of 2.2 million square feet of commercial real estate.

## Anke Mulder, Ph.D., Research Assistant Professor, OHSU

From professor to researcher, businesswoman to scientist, Anke Mulder, Ph.D., has built a career on her willingness to "break the mold". After earning her Ph.D. in Biophysics, Dr. Mulder thought she would logically end up doing research, having assisted a high profile science "rock star" in the human ribosome research world while still in school.

A new passion for business, however, was whetted when she began working with a biopharmaceutical start-up—first in operations and then in R&D. For Dr. Mulder, this environment provided the perfect blend of leading a team, overseeing marketing and working directly with clients. While the work was exciting, she chose to return to the lab to work on a breast cancer research project at a nationally known institution after a couple years in the private industry sector.

Despite her current work back in the research lab, Dr. Mulder sees herself eventually returning to the business side of science, using her skills in product and program management with the possibility of promoting women in both science and business.

## Devon Z. Newman, M.S., J.D., Attorney, Schwabe, Williamson, & Wyatt

Devon Newman leads Schwabe's Intellectual Property Litigation group and focuses her practice in the areas of litigation of patents, trademarks, trade secrets, copyrights, false advertising and cybersquatting (Internet/web) matters in federal court and the International Trade Commission. She has represented plaintiffs in significant recent jury trials and has successfully enforced her clients' patents in foreign countries, including China and Germany. Clients come to Ms. Newman when they need a trial lawyer who is practical and can partner with the client to resolve a business dispute in a way that keeps the client's goals at the forefront.

Ms. Newman's litigation practice also extends outside the intellectual property arena to include general civil actions including unfair trade practices, breach of contract, shareholder derivative actions, and defamation. She is also a registered patent attorney with experience in prosecuting patents and trademark applications for leading U.S. companies, universities, and government institutions.

## Brian O'Connor, Director, Alliance Development and Grassroots Advocacy, Biotechnology Industry Organization (BIO)

Brian O'Connor serves as Director, Alliance Development and Grassroots Advocacy at the Biotechnology Industry Organization (BIO) where he plans, directs and executes all aspects of BIO's state and federal grassroots advocacy activity. In this role, he is tasked with developing and maintaining relationships with BIO State Affiliates and other key stakeholders to build and lead coalitions focused on BIO's priority issues.

Mr. O'Connor joined BIO in June, 2009 as Manager, State Government Relations for the Mid-Atlantic Region, Northeast Region, and the Commonwealth of Puerto Rico. Prior to joining BIO, he served as National Finance Director for the Democratic Legislative Campaign Committee. O'Connor previously held the position of Deputy Finance Director at the Democratic Governors Association, as well as positions at the Democratic National Committee and John Kerry for President.

### Adrian Polliack, Ph.D., Chief Operating Officer, Modern Edge, Inc.

Dr. Adrian Polliack oversees operations, project management and strategic services at Modern Edge. In addition to a PhD in biomedical engineering, Dr. Polliack has 20+ years of experience in new product development, product launch and executive management in the medical device and product development area. Prior to joining Modern Edge, Dr. Polliack provided executive advice to companies on strategic initiatives and spent 13 years at SAM Medical, a global provider and manufacturer of emergency medical products. At SAM Medical, he was President and COO, and earlier he was Vice President of Research and Development. Dr. Polliack holds numerous patents worldwide and serves on industry association boards, including the Oregon Bioscience Association, which he chaired in 2012-2013.

### Trish Pruis, PhD, Alliance Manager, Technology Transfer and Business Development (TTBD), OHSU

Dr. Trish Pruis is currently an Alliance Manager in the OHSU TTBD office. Her key roles are to facilitate relationships with potential business partners, including pharmaceutical, biotech, and medical device companies, investors, research institutes, and other relevant partners. She is also responsible for managing OHSU's MedTech Alliance program, which is a platform for investors and industry representatives to stay up-to-date on early stage technologies developed at OHSU. The goal of the MedTech Alliance program is to facilitate collaborations and investment opportunities in order to advance OHSU technologies. Dr. Pruis' overarching goal is to support business development and strategic partnerships at the university.

Dr. Pruis spent two and a half years working on the business development team at MedCure, a mid-sized Portland business that specializes in providing cadaveric specimens, before joining OHSU after earning her undergraduate degrees in Biology and Psychology from the University of Illinois at Urbana-Champaign and her Ph.D. in Behavioral Neuroscience from OHSU.

### Peter Rachor, Director, Center for Entrepreneurship, University of Portland

Peter Rachor is Director for Entrepreneurship and Innovation at the University of Portland. He teaches in and directs the joint UP/OHSU Technology Entrepreneurship Commercialization graduate certificate, as well as UP's Master's in Biomedical Engineering and the nationally awarded Entrepreneur Scholars undergraduate programs. Previously, he was Director of Venture Development at the University of New Mexico, responsible for creation of eight start-up enterprises from technologies developed through various research programs there. He also worked with Los Alamos National Laboratory, assisting inventors, entrepreneurs and technology transfer staff in patent licensing, market assessment, and venture formation.

Prior to becoming involved in education, research and economic development a decade ago, Mr. Rachor co-founded three ventures in the wireless and internet technologies, and also held senior positions with several international telecommunications firms.

### Brendan Rauw, Vice President, Technology Transfer and Business Development, OHSU

In his current role, Brendan Rauw is responsible for forging a successful dynamic program to advance OHSU's goal of substantially increasing the commercialization of OHSU's intellectual property, and increasing industry research collaborations.

Prior to joining OHSU, Mr. Rauw was Associate Vice Chancellor and Executive Director of Entrepreneurship at the University of California, Los Angeles (UCLA), and the founding CEO of Westwood Technology Transfer, an independent 501(c)(3) set up to oversee technology transfer and industry-sponsored research at UCLA. Previously, he held leadership positions at Columbia Technology Ventures, KAUST, and the Boston Consulting Group. He also worked in corporate and business development with Genzyme Corporation and Celator Pharmaceuticals, a private biopharmaceutical company.

## Wolf Richter, President, EPIC Semiconductors

Wolf Richter, President, CTO and Co-Founder of EPIC Semiconductors in Vancouver, BC, and Silicon Valley, is the brain behind more than 200 patents. Winner of both the '"German Economy Award for Best Innovation" and the "Ernst & Young Entrepreneurship Award", Mr. Richter will share insights from more than 35 years of technology development experience and a track record of economically outstanding innovations.

Experienced as both an entrepreneur and an inventor, Mr. Richter is devoted to pioneering communications technologies and services. His company, EPIC Semiconductor, produces nanoCLoudProcessors (nCPs), which power themselves from conductive surfaces like polymers, rubber, or even the human skin, and communicate (RF-free) wirelessly with a host. nCPs have incredible sensing features, which Mr. Richter will demonstrate live on stage.

## Kate Ryan, Ph.D., Life Science Business Development Consultant, Ryan Consulting Group

Dr. Ryan has a wealth of experience spanning the pharmaceutical industry, engineering, scientific research, website and technology development and independent consulting. This broad range of expertise uniquely positions her to offer clients a global perspective, based on her experience in a diverse range of disciplines. In 2012, Dr. Ryan founded the Ryan Consulting Group focusing on life sciences business development.

Dr. Ryan holds a Ph.D. in Biomedical Engineering from the University of Utah, completed a postdoc at the Cardiovascular Research and Training Institute and earned a BS from the University of Colorado in Aerospace Engineering. Dr. Ryan has more than 20 years of experience that includes 12 years with AstraZeneca Pharmaceuticals, where she worked as the Executive Medical Liaison and was the recipient of several prominent internal awards. Dr. Ryan is a co-founder of the Bend Bioscience Consortium, an Oregon Bio board member, Scientific Advisor to Amplion and Seven Peaks Ventures, and a volunteer mentor with OTRADI and EDCO.

## Larry Sanders, Vice President and General Manager of Technical Operations, Genentech in Hillsboro

Larry is responsible for the success of the Hillsboro, Oregon site, with the current mission to execute Aseptic Filling, Packaging and Distribution Center operations. As the head of the site leadership team, he is primarily responsible for setting strategy and direction to ensure the continued success of the Roche Group's Biologics Manufacturing, and Genentech, Inc.'s commercial operation as it relates to distributing finished goods.

Mr. Sanders's nearly 30 years of industry experience includes a broad spectrum of operations and leadership roles. Since joining Genentech in 2004, Mr. Sanders has held roles of Senior Director of manufacturing operations in South San Francisco, and Vice President and General Manager of Oceanside Product Operations. He has demonstrated success leading diverse operations including CHO and E. coli cell culture production of biotherapeutics for commercial and clinical use, and aseptic filling and packaging of clinical and commercial biologic drug products. A long time practitioner of operational excellence tools, he was instrumental in the attainment of Class A status in those two sites.

## David Schaffer, Ph.D., Professor of Chemical and Biomolecular Engineering, Bioengineering, and Neuroscience at University of California, Berkeley

Dr. David Schaffer is a Professor of Chemical and Biomolecular Engineering, Bioengineering, and Neuroscience at University of California, Berkeley, where he also serves as the Director of the Berkeley Stem Cell Center.

At Berkeley, Dr. Schaffer applies engineering principles to enhance stem cell and gene therapy approaches for neuroregeneration. This work includes mechanistic investigation of stem cell control, as well as molecular evolution and engineering of viral gene delivery vehicles. David Schaffer has received an NSF CAREER Award, Office of Naval Research Young Investigator Award, Whitaker Foundation Young Investigator Award, and was named a Technology Review Top 100 Innovator. He was also awarded the American Chemical Society BIOT Division Young Investigator Award in 2006, the Biomedical Engineering Society Rita Shaffer Young Investigator Award in 2000, and was elected to the College of Fellows of the American Institute of Medical and Biological Engineering in 2010.

Dr. Schaffer earned his Ph.D. in Chemical Engineering from the Massachusetts Institute of Technology, with a minor in Molecular and Cell Biology, followed by a postdoctoral fellowship in the laboratory of Fred Gage at the Salk Institute for Biological Studies in La Jolla, CA.

## Jackilen Shannon, Ph.D., RD, MPH, Associate Professor, OHSU

Dr. Jackilen Shannon is a nutritional epidemiologist with a strong track record of investigation in the role of diet and nutrition in carcinogenesis. Dr. Shannon has two primary areas of research: cancer prevention and community outreach. The focus of her cancer prevention work is on the use of epidemiologic and clinical research methods to investigate the role of bioactive food components in early carcinogenesis. The goal of this research is to elucidate the mechanisms whereby these compounds may alter cancer risk and thereby develop interventions targeted to have the greatest impact on reducing cancer incidence.

The focus of Dr. Shannon's work in community outreach is in two areas; the first is through the development and maintenance of the "Let's Get Healthy!" program. Let's Get Healthy! is an interactive education and research exhibit that allows participants to learn important information about their body while contributing to science. Second, Dr. Shannon has worked toward developing a formal mechanism for working collaboratively with community groups and hospital systems in multiple regions across Oregon to bring the power of academic research to community level decision-making.

## Heather Stafford, Assistant Director of Innovation and Entrepreneurship, Business Oregon

As the assistant director for Business Oregon's new Innovation and Entrepreneurship division, Heather Stafford leads Oregon's innovation strategy. In her former position as the executive director of Sustainable Valley Technology Group, an independent nonprofit economic development group headquartered in Medford, Ms. Stafford managed the only business accelerator in the six counties of Southern Oregon to support the growth of innovative, start-up companies. She previously worked with Oregon's Small Business Development Centers' statewide Grow Oregon initiative, providing market research for mid-sized traded companies.

## Nephi Stella, Ph.D., Professor, University of Washington, Department of Pharmacology and Psychiatry and Behavior Sciences, and Founder, Stella Therapeutics

Dr. Nephi Stella, a professor in the department of Pharmacology, Psychiatry and Behavior Sciences at the University of Washington, has been studying the therapeutic value of cannabinoid-based drugs for the treatment of various disease of the brain for 20 years. During that time, his research has included brain cancer, memory impairment, epilepsy and Huntington's' disease.

The underlying goal of his research has been the understanding of the mechanism of action of cannabinoid-based drugs and the biological function of eCB signaling under healthy and disease states; his laboratory leverages pharmacological and genetics approaches applied at the molecular, cellular and preclinical levels.

Based on his research Dr. Stella founded Stella Therapeutics, a privately held drug discovery company, in 2011. The company is focused on developing first-in-class small molecules that hold the promise of curing Glioblastoma Multiforme (GBM), the most common and deadliest malignant brain tumor, while maintaining patient quality of life.

As an entrepreneur, researcher and professor, Dr. Stella has ambitiously pursued his passion to apply cutting edge research to develop cannabinoid-based cures and treatments for some of the most deadly and debilitating diseases of our age.

## Erik Tucker, PhD, Co-founder and Chief Operations Officer, Aronora

Dr. Tucker is a biochemist, biomedical engineer scientist and co-inventor of most of Aronora's product candidates. Dr. Tucker has been with the company since the start of operations. He oversees the daily R&D activities of Aronora, and he is principal investigator on Aronora's NIH SBIR grant-funded projects. He holds an adjunct faculty position at the Department of Biomedical Engineering at OHSU.

Dr. Tucker, whose academic research involved the molecular basis of blood coagulation, has invented several new drug candidates under development to treat major diseases including heart attacks and strokes. He's authored 27 scientific publications, received a T32 NIH Research Service Award and was among the Business Journal's 40 Under 40 this year.

## Fred Vogelstein, Contributing Editor *WIRED* Magazine, Author of "Dogfight: How Apple and Google went to war and started a revolution"

Fred Vogelstein is a contributing editor at *WIRED* magazine, where he writes about the world of high-tech business and finance. This past summer, Mr. Vogelstein authored a far more personal story, chronicling his family's efforts to find a viable epilepsy treatment for his son, a search that would ultimately take them to London, where researchers were exploring the use of cannabidiol (CBD) in treating epilepsy. In seeking a cure for his son, Mr. Vogelstein faced challenges from the FDA, Drug Enforcement Administration and marijuana detractors.

When not reporting on the promising R&D efforts to use CBD in treating medical issues ranging from epilepsy and Parkinson's to cancer pain management and brain tumors, Mr. Vogelstein has worked for *Fortune* magazine, *U.S. News & World Report, The Wall Street Journal* and *Newsday.* He has been a fellow in economics and business journalism at Columbia University and has a B.A. in political science from Pomona College.

Published in November 2013, Mr. Vogelstein's book, "Dogfight: How Apple and Google went to War and Started a Revolution," chronicles the unfolding battle over who will control how information—data, music, pictures, video—will flow through the world.

## Brian Wall, Assistant Vice President for Research, Commercialization, and Industry Partnerships, Oregon State University

In 2014, Brian Wall became OSU's first Assistant Vice President for Research, Commercialization and Industry Partnerships. In this role he leads a strategic priority of OSU, the OSU Advantage, to connect OSU resources with industry, entrepreneurs and investors. He also currently chairs the OSU Venture Development Fund Advisory Council, working collaboratively with the OSU Foundation to raise approximately $5M in gap funding and supporting 25+ projects inside and outside of OSU totaling over $3M in awards in the past five years.

Previously, Mr. Wall led the Office for Commercialization and Corporate Development (OCCD) at OSU as well as held numerous other roles since 2001. Mr. Wall is passionate about finding creative, proactive means to connect OSU research with commercial partners. He created OSU's first equity policy, negotiated OSU's first equity license, built a team whose agreements have quadrupled license revenue in the past ten years and another team, which has completed agreements generating tens of millions in research, while forming deep and strategic connections with industry.

## Christopher Ward, President, Ward Health Inc.

Christopher Ward is President of Ward Health Inc., a health care consultancy established in 2000 and based in Washington DC and Hamilton ON (Canada). In this capacity, he has developed, implemented or participated in health access related projects in over 30 countries, 49 U.S States and 10 Canadian provinces. Ward Health's client activity has included extensive work on health professional regulation, market access and reimbursement, health system financing and the development of stakeholder engagement platforms for health policy decision-making.

Mr. Ward has had a lengthy involvement in health policy both in the private and public sectors. From 1985 to 1990, Mr. Ward served as a Member of the Provincial Parliament in the province of Ontario, Canada. In 1985, he was Parliamentary Assistant to Ontario's Minister of Health and was responsible for carrying the legislation that established Canada's largest publicly funded prescription drug benefit plan. In 1987, he was appointed Minister of Education and in 1990 he was Government House Leader.

Ward Health's clients include government ministries and agencies, health industries, and health-related non-profit organizations in Canada and the United States.

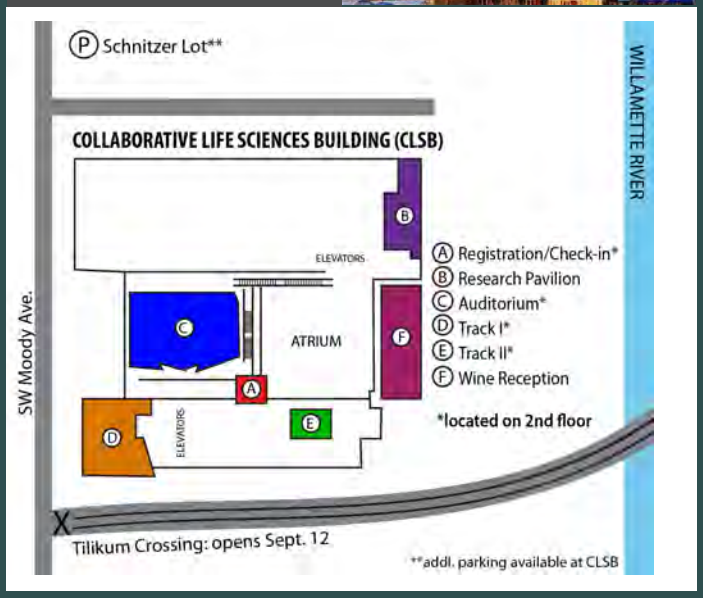
## Kerri M. Winters-Stone, Ph.D., Co-Program Leader of the Knight Cancer Prevention and Control Program; Co-Director of the OHSU Knight Community Partnership Program Research Professor, School of Nursing, Oregon Health & Science University

Dr. Kerri Winters–Stone is an exercise scientist by training and a research professor in the OHSU School of Nursing. She also holds positions as co-program leader of the Knight Cancer Prevention and Control Program, co-Director of the OHSU Knight Community Partnership Program and co-principal investigator of the Oregon Cancer Community Research Collaborative, which is part of the CDC/NIH funded Cancer Prevention and Control Research Network that fosters interdisciplinary work among eight academic institutions across the U.S.

Her specific research program is aimed to 1) identify the treatment-related sequelae that threaten health and survival in people with cancer so that we can 2) develop and test prescriptive therapeutic rehabilitation programs to reduce poor health outcomes and prolong survival among people treated for cancer. To address complex problems in the identification and management of cancer treatment related toxicities and side effects, she has coalesced together a research team that includes experts in gerontology, symptom management, molecular biology, surgical and medical oncology, biomedical engineering, neurology, psychology and behavioral sciences.

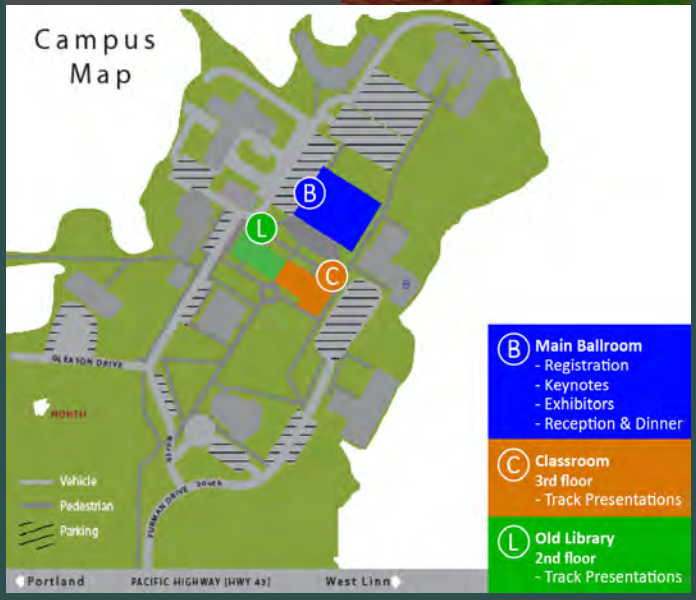
## Day One

Collaborative Life Sciences Building
2730 Southwest Moody Ave.
Portland, OR 97201




## Day Two

Marylhurst University Campus
17600 Pacific Highway,
Lake Oswego, OR 97036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## Special Thanks to our Team

*In special recognition for the countless hours our volunteers and committee members spent helping plan and coordinate the 2015 Annual Conference, the staff of Oregon Bio would like to thank the individuals listed below. Their spirit of volunteerism ensures Oregon Bio will always remain a vibrant organization.*

***Annual Conference Chair***
*Kayla Victor*

***Key Volunteers/Committee Members***
*Sarah Biber*
*Patrick Carberry*
*Joseph Carroll*
*Dianne Danowski-Smith*
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*Don Megrath*
*Jeff Mooney*
*Leslie North*
*Kate Ryan*
*Trenton Saenz*
*Ron Sakaguchi*
*James Sweeney*
*Steve Thompson*
*... and countless others*

***Special thanks to our hosts Marylhurst University***

# We are here to help

Oregon Bio was formally established as a non-profit in 1989 by a consortium of universities, public officials, educators and bioscience executives to cultivate a regionally synergistic bioscience community. Today, Oregon Bio supports the bioscience community through networking, workforce development, educational programs, enterprise support, advocacy, and the promotion of research collaborations.

As the collective voice for our bioscience community, Oregon Bio is responsible for communicating the industry's economic impact, issues and challenges to the public sector, educators and the general public.

Oregon Bio promotes the growth and continually seeks ways to support sustainability and growth in the life science, bioscience, biotechnology and device manufacturing industries. Oregon Bio offers a host of member services to lower operational costs, so members can achieve their scientific, economic and social potential. Oregon Bio is an affiliate of the Biotechnology Industry Organization (BIO).

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