



# Collins Medical Trust

Medical Research and Education in Oregon

2009 Annual Report

Founded by Truman W. Collins, Sr. in 1956

# Collins Medical Trust

## 2009 Annual Report

### Purpose and History

“The principal and income of the trust fund shall be used (a) to aid, further, promote, develop, encourage and sponsor research, experiment and work in the cause, cure and treatment of human diseases or in any field of medical research, and (b) to aid, further and promote medical education.”

The Collins Medical Trust was founded by Truman Collins Sr. in the fall of 1956. He was interested in the medical field and wanted to set up a trust that would contribute to medical research and education taking place in Oregon. Contributions were made to the trust over the next ten years or so, and its assets have grown significantly since that time, largely due to the wise investment decisions of the financial adviser, Jim Miller, over the first forty years of the Trust’s existence.

Because the Trust makes relatively small grants—typically in the \$15,000 to \$30,000 range—our focus for research grants has primarily been seed funding to projects that will go on to request from the NIH or other large funders in a later stage.

Since its inception, the Collins Medical Trust has made grants totaling about \$6.4 million.

### Trustees and Staff

Nancy Helseth: Administrator (1993 – present)  
 Truman Collins Jr.: Trustee (1990 – present)  
 Dr. Elizabeth Eckstrom: Trustee (2003 – present)  
 Dr. Walter McDonald: Trustee (2005 – present)  
 Timothy Bishop: Treasurer (1990 – present)

### Financial Statements (Fiscal year ending September 30, 2009)

Assets and Liabilities			Revenue and Expenses		
Assets:	2009	2008	Income:	2009	2008
Cash	\$427,749	\$230,420	Income (interest & dividends)	\$228,988	\$287,534
Stocks	\$5,690,745	\$6,873,378	Realized gains	\$262,516	\$15,961
Bonds	\$22,875	\$69,000	Unrealized gains	(\$1,212,353)	(\$1,341,914)
Total assets	\$6,141,369	\$7,172,798	Total income	(\$720,849)	(\$1,038,419)
Liabilities	(\$22,211)	(\$34,617)	Taxes & investment expense	(\$5,262)	(\$7,400)
Net Assets	\$6,119,158	\$7,138,181	Net Investment Income	(\$726,111)	(\$1,045,819)
			Grants - net	(\$292,897)	(\$421,809)
			Net revenue	(\$1,019,008)	(\$1,467,628)

## 2009 Grants (October 1, 2008 – September 30, 2009)

### Research

- \$29,980 — OHSU Foundation — Binoy Appukuttan, Ph.D.  
Use of Novel RTEF-1 Protein Isoforms to Prevent Abnormal Blood Vessel Growth for the Treatment of Blindness and Cancer
- \$29,826 — OHSU Foundation — Dr. Jau-Shin Lou  
Lipoic Acid for Chronic Inflammatory Demyelinating Polyneuropathy — a Randomized, Double-Blind, Placebo Controlled Pilot Study
- \$28,830 — OHSU Foundation — Georgiana Purdy, Ph.D.  
Identification and Characterization of Biologically-Relevant Mycobactericidal Ubiquitin-Derived Peptides
- \$29,753 — OHSU Foundation — Feifei Yan, Ph.D.  
Role of Derlin-1 complex in ER-associated degradation of KATP channel folding mutants
- \$30,187 — OHSU Foundation — Winston Chamberlain, MD, Ph.D.  
In Vivo Mouse Corneal Nerve Regeneration and Inflammation After Eye Surgery
- \$30,000 — OHSU Foundation — Suzan Dziennis, Ph.D.  
Recombinant T-Cell Receptor Ligand 551: A Novel Therapeutic Approach for Stroke
- \$13,835 — OHSU Foundation — Teresa Goodell RN  
Skin Oxygenation During Turning in Critically Ill Elders: Potential for Pressure Ulcer Prevention
- \$29,652 — OHSU Foundation — Peta Grigsby Ph.D.  
Primate Model of Ureaplasma Infection *in utero*: Prevention of Neurologic Sequelae
- \$28,541 — OHSU Foundation — Claudia Lopez, Ph.D.  
Development of Antivirals Against HIV Assembly
- \$29,800 — OHSU Foundation — Guangwu Xu, MD, Ph.D.  
Murine Cytomegalovirus Latency and Reactivation in Stromal Cells

Total Research: \$280,404 (89%)

### Education

- \$35,000 — Linfield School of Nursing  
Paquet Scholarship Fund, For Current Scholarships.

Total Education: \$35,000 (11%)

**Total Grants approved in 2009: \$315,404**

## Highlights from Prior Grants

It may take years before the outcome of a research project is fully known. The following three grants were made in past years. For each, some context and detail is given for the outcome of the project.

### Cell Biomechanics and the Study of Disease States

Sean S. Kohles, Ph.D., Associate Professor of Mechanical & Materials Engineering  
Portland State University & Oregon Health Sciences University  
\$30,000 awarded in May 2008

In 2005, the National Science Foundation awarded an instrumentation grant to PSU for the development of a novel device integrating two laser-based techniques for the study of single-cell biomechanics. Now, an optical tweezer may position individual cells within complex microfluidic environments while directly measuring flow velocities (stresses) and the responding cellular deformation (strains). This advanced technology facilitates biomechanical investigations at the cellular level in order to discover the relationship between mechanics and biology (mechanotransduction) and the potential for identifying cell mechanics as a biomarker for disease. The goal was and still is to provide a more complete knowledge of individual cellular biomechanics associated with diseases (e.g., cancer, diabetes, arthritis) as well as prioritizing the biomechanical factors most critical to stimulating regenerative processes. In 2007, the National Institutes of Health provided funding to validate this approach using cartilage and bone cells in an effort to understand arthritis, a disease which affects one in three American adults. More recently, an award from the Collins Medical Trust has added additional support to help facilitate the cell culture environment necessary to pursue living-cell studies. This ongoing effort includes the continued validation of a novel instrument and the formation of a database archiving cellular biomechanical properties supporting the exploration of healthy and diseased states.

Many additional researchers, both faculty and students, have contributed directly or indirectly to this investigation including Derek C. Tretheway, PhD, of PSU, Shelley R. Winn, PhD, of OHSU, and Randy D. Zelick, PhD, of PSU. Validation studies have produced biomechanical data which has led to groundbreaking publications describing both experimental and mathematical modeling results. These preliminary studies have supported a seed effort contributing to multiple internal and external grant applications. As with any new technology developed for a novel experimental approach, limitations were identified precluding a complete biomechanical assessment of single and multiple cells. Despite the technical limitations, scientific discoveries have been recognized including the challenge of making cell-level knowledge relevant to tissue-level therapies. In this perspective, Dr. Kohles has been bridging the discoveries between cell engineering and tissue engineering. Here, cell population biomechanics and biomaterials science become critical components when harnessing the adaptability of the living system toward tissue repair, regeneration, and healing. Through an increased university leadership interest in establishing inter-institutional partnerships between OHSU and PSU, additional clinical relevancy is being added to this investigation. The award from the Collins Medical Trust has provided valuable support toward strengthening these research and educational partnerships.

## **Antimicrobial Activity of C9ASA against Methicillin-Resistant *Staphylococcus aureus***

Michiko M. Nakano, Ph.D., Research Associate Professor

Oregon Health Sciences University, Division of Environmental & Biomolecular Systems

\$25,000 awarded in October 2008

Thanks to a \$25,000 grant from Collins Medical Trust in October 2008, an OHSU team of researchers has made progress toward elucidating how methicillin-resistant *Staphylococcus aureus* (MRSA) escapes from antimicrobial treatment. Collins Medical Trust provided funding to Michiko M. Nakano, Ph.D. in support of a project titled *Antimicrobial Activity of C9ASA against Methicillin-Resistant Staphylococcus aureus*. A natural isolate of *Bacillus pumilus* produces an antibacterial substance C9ASA that is highly effective against gram-positive pathogens including MRSA. Increasing prevalence of MRSA has been a serious threat to public health worldwide. The grant supported an important early stage of the research, which includes identification of the structure of C9ASA and its mode-of-action against MRSA.

In collaboration with Dr. John Vederas (University of Alberta, Canada), the OHSU research team identified C9ASA to be amicoumacin A that has antimicrobial and antiulcer activity. To gain insights into the mode-of-action of amicoumacin A, the team and a collaborator Dr. Jan Pané-Farré in Dr. Michael Hecker's group (Ernst-Moritz-Arndt-Universität, Germany) carried out transcriptome analysis in *S. aureus* strain COL, community-associated MRSA. Alteration of gene expression is likely the result of bacterium's attempt to overcome damages caused by the antibiotic. The research supported by Collins Medical Trust laid the groundwork for the research funded in 2009 by NIH-NIAID, and the team continues studying the response of MRSA to amicoumacin A. Characterization of genes that are up-regulated or down-regulated in response to amicoumacin A will likely provide some clue to understanding how these genes function in MRSA pathogenesis.

## **Exploiting viral hitchhiking to cure genetic disease. Dissecting the fate of viral particles**

Peter Kurre, M.D., Associate Professor

Oregon Health Sciences University, Pediatrics and Cell & Developmental Biology

\$25,000 awarded in November 2006

In November 2006, the Collins Medical Trust made an award to OHSU in support of this project led by Peter Kurre, M.D. The results from one year of seed funding from the Collins Medical Trust formed the basis of an ongoing five-year National Institutes of Health (NIH) grant, now in its second year and a 3 year National Research Service Award for Dr. Amy Skinner, postdoctoral fellow in the laboratory of Dr. Kurre. Thus, the \$30,000 investment, combined with the vision and philanthropic leadership by the Collins Medical Trust attracted some \$1.9 million to OHSU, not counting the ability to provide employment and the gains in intellectual capital.

Funds from the Collins Medical Trust allowed Dr. Kurre and his team to carefully dissect the fate of specialized virus particles in blood and bone marrow cells to discover a new pathway by which they can be exploited for therapeutic purposes. The ability to rationally design the viruses for a specific genetic target implies a completely novel method to approach cancer therapy. Together, capture, tissue-targeted delivery and release of virus particles provides fresh opportunity for the treatment of cancers resistant to conventional therapy. The follow up studies funded through grants from the National Heart Lung and Blood Institute will provide proof of principle for this strategy and form the basis of more specific, disease-targeted subsequent studies.

## Policies

The Original Trust document states that monies from the Trust shall be used:

“To aid, further, promote, develop, encourage and sponsor research, experiment and work in the cause, cure and treatment of human disease or in any field of medical research, and

To aid, further and promote medical education.”

With this statement as a guide, and having knowledge of the desires and concerns of the Trustor, Mr. Collins, and applicable laws, the Trustees over the ensuing years have established the following *general guidelines* under which grant requests are considered:

1. Disbursements are made only to applications which have established their tax-exempt status with the U.S. Treasury Department and are operated exclusively for scientific and/or educational purposes.
2. Preference is given to projects and programs conducted by qualified organizations within the State of Oregon.
3. Funds cannot be paid directly to or for the benefit of any specific individual. This does not preclude grants to qualified institutions for organized scholarship programs. Education is generally geared toward the education of health care professionals.
4. Grants for annual operating budgets or for deficit financing are not favored.
5. Disbursements are normally not made to “Private Foundations”, as defined in the Internal Revenue Code.
6. The Trust will not support efforts to influence legislation or other political action.
7. In considering projects or programs involving substantial funds, the Trust prefers to participate with other donors and expects the applicant to seek additional support.

## Submission Procedures

Requests for information and applications for grants from the **Collins Medical Trust** should be presented in writing. Applications need not be formal and should include an Executive Summary suitably brief to present the necessary facts about the applying organization and the project for which the grant is being sought, supported by sufficient technical detail to present a clear picture of the project and expected outcomes. Project outcomes should be clearly articulated, along with an evaluation plan that will determine how successful the project was in attaining its objectives.

The application should include (If the Trustees believe further information is required, they may request an interview with a principal of the applicant and/or a visit to the applicant’s facility):

1. The exact name of the organization or agency making application, and the specific date when requested funds will be required.

2. A copy of the letter from the Treasury Department of the United States which grants tax exempt status; also a statement that the applicant is classified as “Not a Private Foundation”, as defined in the Internal Revenue Code.
3. The nature of the project for which funds are requested. Projects seeking funding for symposiums, seminars or conferences should contain details regarding course evaluations.
4. Curriculum vitae of the investigator(s). NIH format is preferred. Junior investigators should identify their primary mentor(s) as preference is given to projects associated with respected mentor(s).
5. Bibliography supporting the project.
6. In research projects involving human subjects, the status of IRB approval should be included.
7. A budget for the proposed project.
8. Estimated total of funds required for the proposed project and the amount sought from the **Collins Medical Trust**.
9. Anticipated source of balance required in excess of funds requested from the Collins Medical Trust.
10. Other sources being approached for financial assistance for the project.

Electronic submission (preferred): via email to [nhelseth@collinsco.com](mailto:nhelseth@collinsco.com) (.pdf format preferred).

Hard copy submission: Submit the *original and 1 photocopy* of the proposal (including any supporting documentation). Mail to:

Nancy L. Helseth, Administrator  
Collins Medical Trust  
1618 S.W. First Avenue, Suite 500  
Portland, OR 97201

(503) 471-2223  
[nhelseth@collinsco.com](mailto:nhelseth@collinsco.com)  
<http://www.collinsmedicaltrust.org/>

### **Replies to Applications:**

The Trustees meet *three times a year*, in January, May and September. Requests should be submitted by the *first day* of these months to receive timely consideration. It is not possible to react to emergency requests for crash programs. When an application has finally been acted upon by the Trustees, it will be accepted or rejected in writing sent to the mailing address of the applicant by the first week in the following month.

### **Reports:**

The organization receiving a grant from the **Collins Medical Trust** has a responsibility to report on the use of the funds granted. Unless otherwise indicated at the time disbursement is made, reports are requested to be made annually until the entire grant has been expended. These reports should cover not only progress, but also evaluate the results being achieved. Additionally, throughout the duration of the project, any substantial changes in scope, personnel, or funds that are re-directed from the original purpose, should be reported to the Administrator of the Collins Medical Trust for approval by the Trustees at their next regularly scheduled meeting. Lastly, the Collins Medical Trust appreciates acknowledgment, primarily in scientific publications, for their contribution in support of the project.

## Trustee Biographies

### **Walter J. McDonald, MD, MACP**

Walter received his undergraduate education at Williams College and his MD degree at the University of Michigan. Following a residency in internal medicine at Oregon Health Sciences University, he returned to Michigan for training in Endocrinology. He is certified in both internal medicine and endocrinology.

Walter was the Chief of Medicine at the Portland Oregon VA Medical Center for 12 years beginning in 1979. He then assumed the role of Associate Dean for Education at the Oregon Health Sciences University. In 1995 he became the CEO of the American College of Physicians. In 2002 he assumed the role of CEO of the Council of Medical Specialty Societies, a position he held until 2008.

Walter serves on the Executive Committee of the Physicians Consortium for Performance Improvement, and is Chair of the ACP Foundation and a Board member on several other foundations.

He is a member of Alpha Omega Alpha and has been elected as a Master of the ACP. He has been recognized by Oregon Health Sciences University as Alumnus of the Year (1998) and has been recognized by a number of organizations for both his teaching and leadership skills.

His primary interests include quality improvement, continuing and graduate medical education, and professionalism.

### **Elizabeth Eckstrom, MD, MPH**

Elizabeth is a geriatrician who specializes in promoting an active lifestyle in older adults and issues relevant to healthy aging in women. She is Director of Geriatrics at Oregon Health & Science University in Portland, Oregon, and Associate Professor of Medicine.

Her research has focused on teaching residents how to counsel elderly patients in physical activity, doctor-patient communication, and tai chi for prevention of falls in older people. She also studies the effectiveness of training primary care faculty in geriatrics, and speaks regionally and nationally on strategies to optimally care for older patients in primary care practice.

Personal interests include travel, windsurfing, telemark skiing, gardening, and reading.

### **Truman W. Collins, Jr.**

Truman is the son of the founder of the Collins Medical Trust (Truman W. Collins, Sr.), and has been a trustee since 1990. Truman earned his Master's degree in Computer Science from Stanford University in 1987.

In addition to serving as Trustee of the Collins Medical Trust, Truman is the President of The Collins Foundation, and a board member of The Collins Companies. He also serves as a trustee of the OHSU Foundation, is a committee member of the Medical Research Foundation, and is a board member of The Chalkboard Project—an initiative of Foundations for a Better Oregon.

Truman also works part-time as a software engineer for Mentor Graphics Corporation in the area of Computer Aided Engineering software used for the design and fabrication of integrated circuits.

Cover photo: Mechanical Bioreactor for Engineering New Tissues from Living Cells  
Photo courtesy of Sean Kohles Ph.D.

Design and typesetting: Truman W. Collins Jr.