

## **Strategic Planning for Advancing the Academic Infrastructure Within the Field of Prosthetics & Orthotics**

**Executive Summary:** A *Strategic Planning* meeting was conducted under the auspices of the American Academy of Orthotists and Prosthetists and their grant from the U.S. Department of Education (H235J040017) June 16-17, 2005 in Seattle, Washington. This was a follow-up to the preliminary work completed during Year I (H235R040001) of this grant project. The theme, agenda, attendees, and primary conclusions are summarized below.

Most participants had attended at least one of the prior Grant Year I meetings, which facilitated building on that effort. The *O&P Education Summit*, which was also part of the Year II grant work, had just been held and concluded that the field move to an entry-level master's degree by 2010. The recommendations were reviewed and set the stage for these deliberations.

The group also discussed the conclusions of the Advanced Education & Research Training Initiative (AERTI) Report, which was the culmination of the series of Strategic Planning meetings in Year I. Those results are reprinted below. There was broad agreement that the existing plan was sound and complete.

Jean Deitz, PhD, OTR/L stimulated and led the initial discussions at this meeting based on her experience with the development within the field of Occupational Therapy of academic master's and doctoral degree options. Highlights from this discussion follow and provide the context for the decisions reached by consensus at this meeting.

Subsequent work will re-examine these recommendations as well as determine what must be done to accomplish the goals.

### **Training the Scientists and Academic Leaders in the field of P&O for the Future**

#### Agenda:

1. Dept of Education Grant Overview – Strategic Planning Emphasis  
Douglas Smith, MD
2. Review the conclusions of Grant Year I 2004 meetings (Seattle and Chicago)  
John Michael, MEd, CPO
3. *O&P Education Summit* Overview (April 2005, New Orleans) ~ ***Correlation to Training Scientists and Academic Leaders***  
John Michael, MEd, CPO and Douglas Smith, MD
4. Building Support and Enthusiasm ~ Communication is Key!  
Open Discussion: John Michael, MEd, CPO and Jean Deitz, PhD, OTR/L  
Creating Positive Outcomes  
Identifying & Negating Potential Barriers

5. Create Action Plan Addressing Recommendations & Needs ~ *Advanced Education & Research Training Initiative [AERTI]*
- Career Development Support – *Priority #1*
  - Student Training Grants / Support
  - Institution or Program Grants/ Support
  - Expanding Research Education at in P&O

For each recommendation and need:

- a) Identify what is currently available, and discuss how to make individuals within P&O aware of current opportunities
- b) Discuss new programs that can possible be stimulated in the next few years to both allow individuals with P&O training to pursue scientific training, and allow scientists to pursue P&O education.
- c) Brainstorm any new and unique solutions for P&O

**List of Participants:**

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|----------------------------|--|
| Alicia Davis, CPO          | University of Eastern Michigan P&O Center    |
| Brad Dicianno, MD          | University of Pittsburgh                     |
| Brian Hafner, PhD          | Prosthetics Research Study                   |
| Charles Scoville, Col(ret) | Walter Reed Army Medical Center              |
| Chris Hovorka, MS, CPO,LPO | Georgia Institute of Technology              |
| Daniel Abrahamson, CPO     | University of Washington                     |
| Donald Katz, CO            | Texas Scottish Rite Hospital                 |
| Douglas McCormack          | Sonnenschein, Nath & Rosenthal               |
| Douglas Smith, MD          | Prosthetics Research Study                   |
| Dudley Childress, PhD      | Northwestern P&O Center                      |
| Ed Haddon, CO              | Century College                              |
| Gayle Reiber, PhD          | University of Washington                     |
| Jean Deitz, PhD            | University of Washington                     |
| John Ferguson, CPO         | Brooke Army Medical Center                   |
| John Michael, MEd, CPO     | CPO Services                                 |
| Larry Robinson, MD         | University of Washington                     |
| Mark Geil, PhD             | Georgia State University                     |
| Mike Mojica, CPO           | University of Texas Southwestern Medical Ctr |
| Sharon Scribner            | Sonnenschein, Nath & Rosenthal               |
| Stefania Fatone, PhD       | Northwestern P&O Center                      |
| Steven Gard, PhD           | NWU Prosthetic Research Lab                  |

**Recommendations and Needs from the AERTI Report**

Participants in the Strategic Planning conferences conducted during Year I of this Academy grant project concluded that the following resources are required to meet the needs of the P&O profession for training scientific and research leaders:

## **1. Institution or Program Grants**

These funds would provide institutions with the financial resources to support advanced research degrees relevant to the field of P&O. These grants may be similar to the NIH Institutional Research Training Grants or the Department of Education RSA Training Program Special Capacity Building Grants. These grants should be available to schools that are currently providing entry-level P&O education (and therefore already have expertise) to assist in developing or refining advanced degree programs relevant to the field of P&O. In developing or facilitating access to advanced research degree programs, these grants should encourage strong interdisciplinary links with departments/fields such as biomedical engineering, epidemiology, surgery, psychology, economics, public policy, etc.

## **2. Student Training Grants**

These funds would provide financial support directly to individuals undertaking advanced research degrees relevant to the field of P&O. Such funds would minimize the financial barrier posed by tuition and loss of income experienced when returning to school. Funds should cover tuition and provide a stipend during the time an individual is pursuing an advanced research degree. These funds should be specifically allocated to individuals pursuing research relevant to the P&O field. Funding may be made available in the form of Pre-doctoral Training Grants. A potential avenue for disbursement may be the American Academy of Orthotists and Prosthetists (AAOP), the P&O professional organization dedicated to promoting professionalism and advancing the standards of patient care through education, literature, research, advocacy and collaboration. The AAOP would be well positioned to provide oversight, assuring that the funds are used specifically to advance research and scientific goals relevant to the P&O field.

## **3. Career development awards for current P&O faculty**

Funding should be provided to enable current P&O faculty to pursue advanced degrees. These funds could be used directly to provide sabbaticals, tuition and stipends, and indirectly to provide relief from teaching and clinical work. Current faculty members are skilled individuals who should be encouraged to obtain advanced research degrees. The K24 NIH Mid-Career Investigator Award in Patient-Oriented Research (National Institute of Child Health and Development) is an example of this type of funding mechanism that could be emulated.

## **4. Funding to expand the level of research education within the P&O field**

Funds should be made available to institutions that currently provide entry-level P&O education to assist in improving the research curriculum of these programs. These funds would provide the resources required to train entry-level students to be better consumers of existing research and to be advocates for the advancement of Evidence-Based Practice.

# Graduate Education in P&O: How To Get There

*Jean Deitz, PhD, OTR/L*

## What Are the Positives?

- ***Increasing research requirements for P&O students will:***
  - Increase the depth of understanding about the field
    - Become more effective consumers of research
    - Ask appropriate questions
    - Critically review new research
    - Value and apply research findings
  - Strengthen the intersection and translation between clinical care and scientific research
    - Advance the level of clinical practice
      - Establish critical pathways for treatment
      - Evidence based approach to care
      - Maximize clinical outcomes
  - Enhance inter-professional relationships
    - Improve interaction with other professionals on a peer level
    - Allow communication and comprehension on a peer level
  - Create more uniform entry-level education
  - Fosters lifelong learning
- ***Moving P&O education to master's level***
  - Improves and enhances the level and quality of care to persons in need of treatment
    - Graduates will possess increased depth of knowledge and understanding
    - Education at the master's level is more appropriate for the increasing complexity in technology and patient care
    - Attracts higher caliber student
      - Increased academic qualifications
      - Increased maturity
  - Increase credibility of the field
    - Participation in decision-making
      - Potential for influencing policy decisions
      - Potential for input into long-range planning initiatives
      - Produce advocates for the field in positions of authority
  - Increase opportunities for financial support
  - Able to collaborate on research
  - Program structure more consistent with graduate education
    - Lower student – faculty ratio
    - Depth of curriculum
    - Smaller, high cost programs such as P&O are common which makes it a more appropriate fit

- Programs are less vulnerable to budget cuts despite the high costs of clinical education
  - **Raising faculty qualification requirements to MS or PhD**
    - Facilitates the development of science in the field, which is essential to improving the quality and efficacy of patient care
    - Increases credibility
      - With potential students
      - Within the University structure
        - Influences academic appointments and promotion opportunities
        - Potential to participate more effectively in decision-making process
        - Networking with academic peers is facilitated
      - Within the community at large
        - Permits access to external funding, which usually requires the Principle Investigator to have a PhD
          - Access to funding may allow release time for scientific research
    - Facilitate inter-disciplinary understanding
      - increased opportunities to teach and collaborate in other disciplines
    - Develops role models and mentors within the field of P&O
    - Degree being taught determines degree required of educators, which then affects accreditation of programs
    - In the initial phase of increasing research capacity within the field it is important to use the few PhD's for research activities.
      - Full-time administrative duties will preclude and hamper research
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- **Is P&O a trade or a profession?**

- Profession is defined by a
  - Body of knowledge (can be drawn from many disciplines or areas)
  - Skills
  - Indwelling ethic
- Redefining what we do from a device focus to a person focus will transform P&O from a trade to a profession
  - L-Code reimbursement emphasizes the device rather than the service
  - Procedure codes based on critical pathways for treatment may provide an alternative to L-Codes

- **Why P&O Is a Profession:**

- The profession of P&O is based on problem solving and ongoing management of a person with a disability
- Relationship with the patient
- Our services have significant social value
  - We deal with the private matters of the person and their body
  - Focus on patient's well being ("do no harm")

- We have a unique body of knowledge and skills
  - Professional responsibilities:
    - We set our own educational standards and enforce them
    - We set our own credentialing standards and enforce them
    - We set our own ethical standards and enforce them
  - We are part of a health care treatment team
- **Unanswered Questions, to be dealt with at another venue:**
    - What is the science of P&O?
    - What are likely disciplines for an advanced degree in P&O?
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## **What are the challenges and potential solutions to implementing advanced degrees in P&O?**

- **Within The Field:**
  - **Challenge**
    - There is a lack of awareness of the need for advanced academic education
    - Concern that upgrading entry-level education to the Masters degree will undermine the value of existing practitioners.
    - upset the status quo
    - Mid-career practitioners may undermine the value of academic education
    - Raising academic standards will disrupt the present close ties between manufacturers and clinicians
    - Some P&O schools will find this transition difficult
    - Currently there are multiple pathways into the field (closing the ‘back-door’) and certifying organizations
    - Getting scientific papers accepted for publication or for presentation at conferences may become more difficult when the volume increases markedly, or when there is strong academic content but less direct clinical application
  - **Strategy**
    - Attrition may reduce the percentage of people with negative attitudes
    - “Selling the vision” on an ongoing basis will help reduce resistance
    - Recruiting full-time clinician advocates to carry the message will make it more believable
    - Residency directors can speak first-hand from their experience with Masters graduates
    - Young graduates can be a positive force, even if they do not yet possess an advanced degree
    - Workshops presented around the country to educate clinicians on the value of research

- Structures like the Thranhardt lectures of the Academy Annual Meeting & Scientific Symposium may provide a forum for encouraging scientific presentations
  - Facilitating collaborative research between clinicians and an academicians builds mutual respect
  - Development of transitional programs using the PT model may be useful
  - Developing appropriate boundaries between the profession and industry
- **Outside The Field:**
  - **Challenge**
    - We will be training individuals to compete with researchers in other fields, and in our own field
    - P&O is currently viewed as not having a body of knowledge or a discipline
    - Governmental agencies may initially feel threatened
    - The complexity of the field of P&O is largely unknown in Congress
  - **Strategy**
    - Create P&O licensure in all 50 states
    - Develop a clearly articulated body of knowledge
    - Address the lack of credibility
    - Increase our academic standards
    - Promulgating the evidence base of the field on the web will add credibility
    - Meeting and strategize with lawmakers and other policy makers in the top echelons to facilitate change
    - Increase the available funding for P&O relevant research
    - Presentations by P&Os at APTA conferences, etc. can build external support for this initiative