Beyond Clinical Medical Physics: Entrepreneurship and Opportunities in Industry

Robert J. Pizzutello, MS, FACR, FAAAPM, FACMP
Residency Program Director, Upstate Medical Physics, PC
Senior Vice President, Imaging Physics
LANDAUER Medical Physics

Learning Objectives

- Understand how an entrepreneurial role differs from an employee role
- Explore different types of entrepreneurial roles
- Understand how to prepare to be an entrepreneur
- Be aware of key steps to success as an entrepreneur

Disclosures

- Founder and President, Upstate Medical Physics
- Sr. VP, Landauer Medical Physics
- Co-Founder, MedImage Video

Who is an entrepreneur?

- Practical, working definition
- **Salaried employees** work for a company or organization, lower risk, predictable results (?)
- **Entrepreneurs** invest personal assets (time, money, etc.) and take risks beyond those of an employee – in exchange for potentially greater autonomy, flexibility and financial rewards

Outline

- Who is an entrepreneur?
- Bob’s history
- How to succeed (entrepreneur vs. other roles)
- Building for a future entrepreneurial role
- Business aspects
- Communication Skills
- Personal Assessment
- Q&A

http://www.merriam-webster.com/adfiles/III-Pop.html

http://www.npr.org/blogs/money/2012/04/23/151204136/americas-12-million-amateur-innovators
http://www.npr.org/blogs/money/2013/08/19/218314313/americas-12-million-amateur-innovators
Traditional Medical Physics Employment Model

- FTE, University
- FTE, Hospital
- FTE, Government Agency

Alternative Medical Physics Employment Models

- Entrepreneur (Owner or partner)
  - Service: Private practice MP group
    - Astarita, Carey, Goff, Barnes, Simmons, Bushong, Dixon...
  - Product: Business owner
    - John Cameron, RMI
    - Lescrenier, Gammex
    - Mackie (TomoTherapy)
    - Ning (Koning Breast CBCT)
- Industry
  - Balter (Philips)
  - Kalender (Siemens)
  - Sternick (NOMOS)
  - Gray (Lorad, Landauer, RMI mini SBB Phantom)

Pathways to be an entrepreneur

- FTE (academic organization or other employer)
  - Create a solution to a common problem
  - Partner with employer to turn into a product (spin off)
  - Create something on your own time
  - Beware of employment restrictions on ownership
- FTE (Corporate employer, w bonus, $incentives)
- Start a business, become your own boss
  - Find a niche, solve a problem (product or service)
  - Develop a business plan
  - Take a risk

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Looking back…

- Father was engineer, became sales rep
- DABR Therapy, 1983 – consulting?
- Taught Diagnostic Radiology residents
- Began consulting in Imaging 1982 during vacations/weekends
  - Invested, incorporated, spaghetti squash
- 1989: after 10 years at hospital, took the leap
- Practice grew by word of mouth
  - Personal line of credit for payroll
  - Never looked back, not once!
- 2009 National MP opportunity - LMP

Looking back…what helped?

- Commitment to professional quality, integrity
  - “How many CT’s are they doing over there?”
- Finding, building and trusting the team
  - Listen, especially when we didn’t agree
- Creating the right culture (C. Lescrenier)
  - Fairness, integrity, help others, work ethic
- Mentors through AAPM, ACMP
  - Far too many to mention
- Commitment to financial fairness
  - Employees, clients, vendors
- Timing (NYSDOH QC Requirements)
Looking back...what helped?

- Investment (best practices, relationships)
  - Excel for Mammo QC
  - Professional, regulatory involvement
    - NYSDOH, AAPM, MQSA, ACR, FDA
- Helping technologists (customers)
  - QC Forms, manuals, speaking at meetings
- Vendors as partners (remain objective)
  - Nuclear Assoc, RadCal, GE, Lorad, Kodak, MTA,
- Recognizing strengths and market (above)
- Thinking outside the box, being nimble, ACT!
- Not afraid to fail (just try again!) like a 1 yr-old

Lessons:
- Know your strengths
- Partner with experts
- Timing
- Nothing lasts forever (ROI)

RF test tool: Efficiency and standardization

A good form really helped technologist w QC
What’s different about an entrepreneur?
Perhaps less than you thought…

- Basic professionalism
- Communication
- Hard work, Focus
- Partnership to fulfill a need
- Differentiation in the market
- Personal risk

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SF Mammo AEC test tool
(13 exposures, 1 SFM cassette)

Residency in a private practice?

Building for a future as an entrepreneur

- Solid understanding of Medical Physics
- Recognize, assess SWOT
- Fresh ideas
- Freedom from impediments
- Financial flexibility
  - Not paycheck to paycheck
  - Health Insurance
- Business understanding
**Basic Business**

- Define your goals, mission
- Income exceeds expenses (long run)
- Return on investment
- Find a good accountant
- Identify your market, competition
- Choose your partners
- Compensation models
- Cash flow (Dental inspections)
- Legal

**Communication Skills**

- Written and Oral
- Approach as you do ABR process
- Find a mentor; assess, goals, practice
- Professionally “sell” yourself, idea
  - Family, friends, AAPM chapter
  - Colleagues, potential clients, investors
- Effectively communicate *Value*
  - Elevator speech (15 seconds)
  - What makes this different?

**Possible Goals**

- Professional creative freedom
- Build a better mousetrap
- Geographic choice (lakes and small hospitals)
- Reduced organizational politics
- Diverse clientele
- Make a difference
- Get outside in fresh air!
- Build a top notch team
- Build a reputation
- Financial goals
- Exit strategy

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**Compensation Models**

- *Cost vs. Value Based*

  - **Cost based** pricing (cost + profit)
    - Salary (FTE) or Hourly (consultant)
    - Include all expenses, including downtime
  - **Value based** pricing of services
    - What would it cost to do it another way?
    - What additional benefits add value?
    - FTE, salary + bonus (achieve goals)
    - Royalty or percentage

**Personal Assessment**

Ask yourself these tough questions

1. Entrepreneur vs. FTE...
2. Willingness to
   - Take risks
   - Invest time and resources
3. What is my motivation?
4. What do I have to offer?
5. Is the timing right?
6. Do I have the right resources?
7. Am I ready to take the plunge?
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Thank you!