

# How does a medical physicist impact their institution?

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# Challenges to institutional leadership

- You must be willing to take a risk.
  - *No risk, no reward.*
- You must be willing to engage in areas outside our comfort zone of expertise.
  - *Introduce yourself to leaders you don't know!*
- You must be willing to learn other languages.
  - *Different scientific disciplines.*
  - *Business instead of science.*
- You must communicate clearly and at that the appropriate technical level.

# Characteristics of leaders

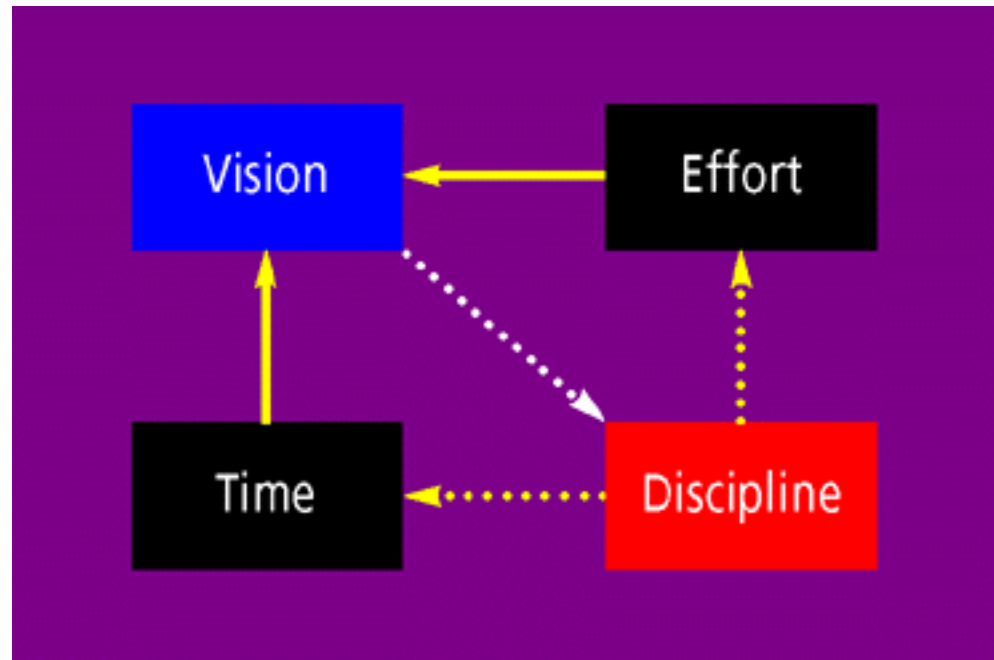
- Not afraid of failure
  - *If you are afraid of failing, you will.*
- Embrace change
  - *It's inevitable, use it to your advantage.*
- Think outside the box
  - *You should not always be comfortable.*
- Active engagement
  - *Don't watch, DO!*

# Cornerstones of success

- Aspiration
- Confidence
- Learn from failure
- Enjoy success

# Success factors

- **Vision**
- **Time**
- **Effort**
- **Discipline**



# FAILURE

WHY IT'S GOOD...

# Denis Waitley

- Failure should be our teacher, not our undertaker.
  - *Success is expected, failure is not. We have to think to understand why we failed!*
- Failure is delay, not defeat. It is a temporary detour, not a dead end.
- Failure is something we can avoid only by saying nothing, doing nothing and being nothing.

# Michael Jordan

- I've missed more than 9,000 shots in my professional career.
- I've lost almost 300 games.
- 26 times I've been entrusted to take the game winning shot --- and missed.
- I've failed over and over in my life.
- **And that is why I succeed!**



# EXAMPLE

- Led a Faculty Senate effort to have our tenure system converted from term to life.
- Spent countless hours with faculty leaders crafting arguments to convince institutional leadership to change the system.
- I signed the memo requesting the change.
- **Turned down!**

# EXAMPLE

- Received a call inviting me to meet the President so that he could explain his decision and address some concerns in the memo.
- I was subsequently asked by both faculty senate leadership AND the President to take on other institutional tasks.

# **CHANGE**

**WHY IT MUST BE EMBRACED...**

If you don't like change, you  
are going to like irrelevance  
even less.

*General Eric Shinseki, Secretary of Veterans Affairs*



We cannot solve  
our problems with  
the same thinking  
we used when we  
created them.

-Albert Einstein

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# Navy Seals

- Are trained to work in teams.
- While expected to follow orders, they are prepared for situations where lines of communication are not stable. Each member is trained to lead and take command, often under very stressful conditions.
- Three common characteristics
  - Focus
  - Commitment to task
  - **Adaptability**



# Ernest Shackleton – *Endeavor*

- The *Endeavor* expedition is routinely cited as an example of outstanding leadership
- In the summer of 1914 Shackleton set out on his now famous expedition to cross Antarctica
- Fired his captain in Argentina
- After only three months into the expedition his ship is stranded on the ice flow and sinks
- Shackleton changed his mission from crossing Antarctica to getting his 29 men home alive



# Shackleton leadership

- Created teams to achieve goals that would benefit the entire group in its goal to survive
- Teams were assembled based on the leadership abilities of his officers and the skills of the individual crew members
- Teams had to be divided with different goals to survive

# Results – all that matters

- All 29 men survived the expedition
- Shackleton crossed the most challenging waters on the planet in small boats with minimal navigational equipment
  - *They hit the eye of a needle at 100 yards!*
- They ascended a mountain range on Elephant Island without climbing gear --- a feat achieved by only a handful of expert climbers with full gear before that time

# EXAMPLE

- I've been chairman of Imaging Physics since 1992.
- I've had five different bosses.
- Each one is different and had different expectations for physics in patient care, research and education.
- I proactively developed a list of “priority issues” and met with the new leaders to explain what I saw as priorities for the department and the division.
- During these meetings I was able to develop an understanding of their expectations and could adapt Imaging Physics goals to meet them.

# GETTING OUT OF THE BOX

OUR WORLD IS A MICROCOSM...

# Understand your organization

- Recognize who are the significant drivers
  - Medical Oncologist, Surgeon, Cardiologist
  - Radiation Oncologist, Radiologist
  - Medical Physicist, Pharmacist
  - Nurses, Technologists
- While there is a hierarchy, all have important functions for the whole to achieve its goals and be successful

# The Medical Physics Boxes

- We tend to think radiation oncology and/or radiology is the center of the healthcare universe.

— **They are not!**

- We must realize that our radiation oncology and radiology colleagues have a unique relationship to us, but they are not the only providers that we need to work with.

# Example

- About 8 years ago our institution decided to install an MR scanner in a neurosurgical suite.
- While the chief of neuroradiology was negotiating about professional issues, the team in Imaging Physics led the configuration and installation effort.
- The Chair of Neurosurgery, Chief Medical Officer and CEO were impressed with our professionalism and the value we brought to that \$12M project.

# Example #2

- About 20 years ago I became convinced that small animal imaging would be important in cancer research.
- I worked with radiology leadership for almost 10 years to get funding to start a program.
- We developed the program to the point it was included in our P30 Cancer Center Support Grant.
- For the last 10 years we have been one of the highest rated core facilities in the institution.



# ENGAGEMENT

YOU MUST COMMIT 110%...

# Be assertive

- We live in a world of Type A personalities
- Good practice leaders will promote you outside the department
  - *But you must make sure that they do!*
- How do you get recognized?
  - *You do something worthy of recognition!*
- *You must take a leadership position to be recognized as a leader!*

# Value added

- What do we contribute that others can't?
- Medical physicists are a cost effective bridge between the radiation oncologist/radiologist and other members of the healthcare team.
  - We must make sure that we are included and considered as independent professionals in these activities.

# Summary

- You can make a difference at the institution level, but you must be willing to assume leadership positions and take risks.
- While the institution will value your professional and scientific insight in existing programs, it is often the “new programs” that offer the opportunity for you to demonstrate critical thinking skills.

