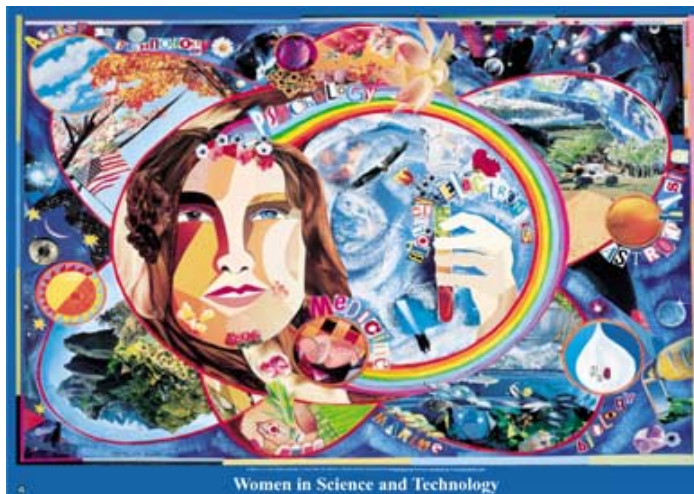


# ***Women in Science Leadership: Pathways and Potentials***

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# ***Leadership vs. Management***

## **Leaders:**

Leaders innovate

Leaders develop

Leaders focus on people  
and structures

Leaders inspire trust

Leaders have a long range view  
view

Leaders ask what and why

Leaders keep their eyes on the  
the future

Leaders challenge the status quo  
quo

## **Managers:**

Managers administer

Managers maintain

Managers focus on systems

Managers rely on control

Managers have a short range

Managers ask how and when

Managers keep their eyes on  
the bottom line

Managers accept the status

# ***What makes someone a good leader?***

## ***Skills and Characteristics:***

- Basic skills
- Improvement skills
- Problem-solving skills
- Interpersonal skills
- Strategic skills
- Management skills
- Personal Characteristics

# ***Traits of Leaders***

## ***Behavioral Traits***

- Thinking Strategically/Visionary
- Leading change
- Communicating
- Building interpersonal relationships
- Fostering organizational relationships
- Demonstrating integrity, courage and organizational stewardship
- Managing
- Leveraging Diversity

# ***Traits of Leaders***

## ***Personal Characteristics***

- Initiative
- Energy
- Self-control
- Adaptability
- Dependability
- Integrity
- Innovative
- Courage
- Enthusiasm
- Dedication
- Multi-tasking
- Sense of Humor
- Optimism
- Humility
- Action orientation
- Empathy

# *Pathways to leadership*

## EXPERIENCE

### The 'lab'

- Research Team
- Collaborations – within and between institution
- Synthesis Projects – working groups, etc.

### Professional Societies

- Elected offices (chapter, section, overall)
- Committees (organizing, etc)
- Symposia, Working Groups

# *Pathways to Leadership*

## TRAINING and SUPPORT

- Leadership Programs

University programs (e.g. MSU LEAD; UGA ALDP)

Professional Societies

[European Molecular Biology Organization](#)

ESA- Aldo Leopold Leadership Programs

- Peer Networks

## ***An example: “What has helped you develop leadership?”***

- 1) Watching: observing effective leaders and analyzing what they do
- 2) Finding ways to get experience in leadership roles; taking opportunities when they arise, ***but only saying yes to opportunities that I am passionate about.***
- 3) Thinking deliberately about striking a balance between making top-down decisions (in the name of efficiency) vs. involving everyone in decision-making
- 4) Keeping communication lines clear
- 5) Giving people a chance to weigh in; listening and respecting different opinions
- 6) Saying thank you and acknowledging the contributions of others publicly and privately
- 7) Owning mistakes and apologizing, without any caveats
- 8) Identifying personal hindrances/weaknesses and figuring out workaround



# ***“Pitfalls”***

- Not knowing when to say ‘NO’
  - The graceful decline
- Underestimating the Impact/Effort
  - What will I gain from this?
  - Is this the best time to do this?
- Lack of Focus
  - Will this matter?
  - To whom?
- Overcommitment!!

# ***Women in (Science) Leadership***



# ***Do women face unique challenges?***

Sure..

- 1) Stereotypes...implicit bias
- 2) Personality traits/gender differences
- 3) Conflicting responsibilities/demands
- 4) Reward structures
- 5) Role models
- 6) Don't be invisible

But see...

***The Guardian*** <http://bit.ly/1iCwPk7>

“Killing off Sexism in Science”

***AAUW “Why so Few?”*** Hill, Corbett and St. Rose (2010)



<https://www.jjdigeronimo.com/100-women-leaders-in-stem/>

# ***Comments? Questions?***

What do you see as leadership skills?

How can you develop these in yourself and others?

# References and Resources

MSU Office of Faculty and Organizational Development: Leadership Competencies

<http://fod.msu.edu/resources-leadership>

NSF Data - <http://www.nsf.gov/statistics/2015/nsf15311/start.cfm>

Books and other resources on Leadership (MSU)

<http://fod.msu.edu/resources-leadership#books>

Leadership training for Early Career Scientists. *Science* (27 Feb 2015)

[http://sciencecareers.sciencemag.org/career\\_magazine/previous\\_issues/articles/2015\\_02\\_27/science.opms.r1500153](http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2015_02_27/science.opms.r1500153)

Scientists need leadership training *Nature* (2015)

*Nature* 523: 279–281 doi:10.1038/523279a