

# Professional Council Presentation:

## *Sailing the High C's*

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# Disclosures and Conflicts

- I have nothing to disclose and no conflicts of interest

## Introduction



CREATIVE SCIENCE. ADVANCING MEDICINE.

- “This year’s meeting will explore the ways in which we can bring our creativity and scientific expertise to continue building medicine of the future.” – Jim Dobbins, PhD, FAAPM (AAPM President)

## What is creativity?

- A process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; identifying the difficulty; searching for solutions, making guesses, or formulating hypotheses about the deficiencies: testing and retesting these hypotheses and possibly modifying and retesting them; and finally communicating the results. (Dr. E. Paul Torrance)

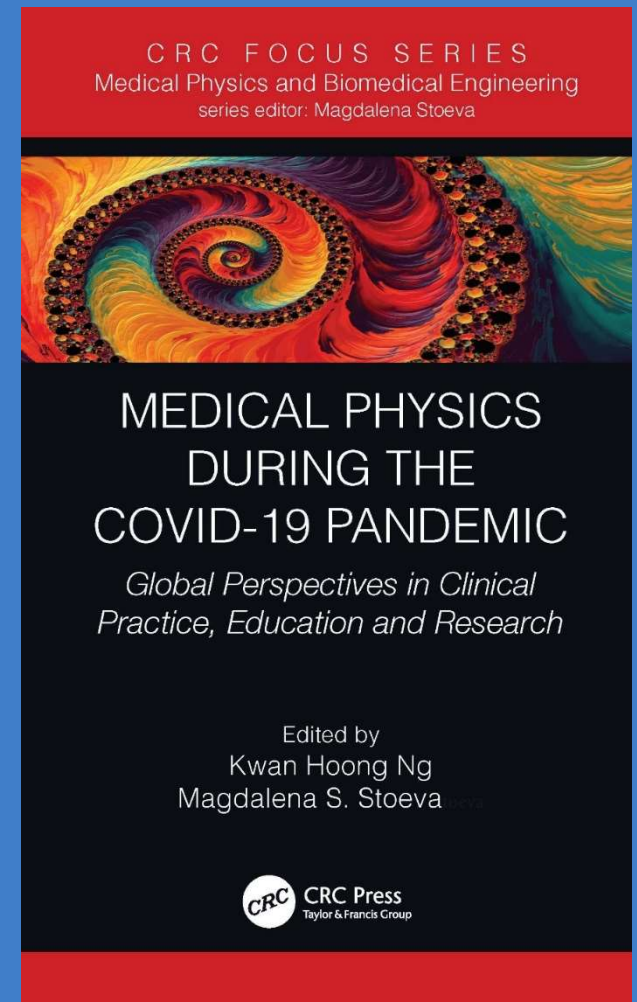
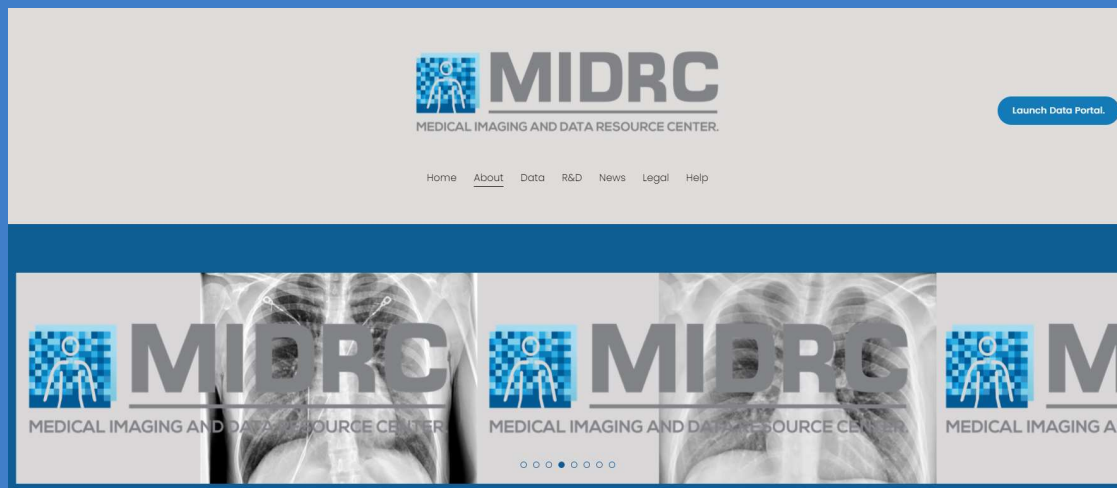


# What is creativity?

- Process involving the generation of new ideas or concepts, or new associations between existing ideas or concepts, and their substantiation into a product that has novelty and originality (New World Encyclopedia)
- How can we be professionally creative?



# COVID-19



# Change

- Get rid of complacency
- RO-APM
- New technologies
  - AI
  - Automation
- Changing clinical paradigms
  - Increased use of hypofractionation
  - MPA's



## Collaboration

- Across clinical medical physics subfields
- Among research, educational, and clinical medical physicists
- Institutional leadership
- Non-physicists



“The future suggests new opportunities for multi-disciplinary research bridging physics, biology, engineering, and computer science, and collaboration in medical physics carries a strong capacity for identification of significant clinical needs, access to clinical data, and translation of technologies to clinical studies.”

-Jeffrey Siewerdsen, PhD, FAAPM  
(APS March Meeting 2016)

### COLLABORATION AND THE DISMANTLING OF PROFESSIONAL SILOS


#### PROFESSIONAL COUNCIL REPORT

Brent C. Parker, PhD | The University of Texas MD Anderson Cancer Center

# Communication

- Interactions with various non-physicist groups
- Professional needs
- Social support

Contents lists available at ScienceDirect

 **ELSEVIER**

Physics and Imaging in Radiation Oncology

journal homepage: [www.elsevier.com/locate/phro](http://www.elsevier.com/locate/phro)

Professional quality of life and burnout among medical physicists working in radiation oncology: The role of alexithymia and empathy<sup>☆</sup>

Marialaura Di Tella<sup>a</sup>, Valentina Tesio<sup>a</sup>, Jenny Bertholet<sup>b,c,d</sup>, Anne Gasnier<sup>e</sup>, Elisabet Gonzalez del Portillo<sup>f</sup>, Mateusz Spalek<sup>b,g</sup>, Jean-Emmanuel Bibault<sup>b,h</sup>, Gerben Borst<sup>i</sup>, Wouter Van Elmpt<sup>j</sup>, Daniela Thorwarth<sup>k</sup>, Laura Mullaney<sup>b,l</sup>, Kathrine Røe Redalen<sup>b,m</sup>, Ludwig Dubois<sup>b,j</sup>, Cyrus Chargari<sup>b,e</sup>, Sophie Perryck<sup>b,n</sup>, Steven Petit<sup>b,o</sup>, Myriam Lybeer<sup>p</sup>, Lorys Castelli<sup>a</sup>, Pierfrancesco Franco<sup>b,q,\*</sup>

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*J Appl Clin Med Phys*. 2019 Sep; 20(9): 157–162. PMID: PMC6753865  
Published online 2019 Jul 29. doi: [10.1002/acm2.12675](https://doi.org/10.1002/acm2.12675) PMID: [31355990](https://pubmed.ncbi.nlm.nih.gov/31355990/)

**Peer support: A needs assessment for social support from trained peers in response to stress among medical physicists**

Jennifer Johnson,<sup>1</sup> Eric Ford,<sup>2</sup> James Yu,<sup>3</sup> Courtney Buckey,<sup>4</sup> Shannon Fogh,<sup>5</sup> and Suzanne B. Evans<sup>✉3</sup>

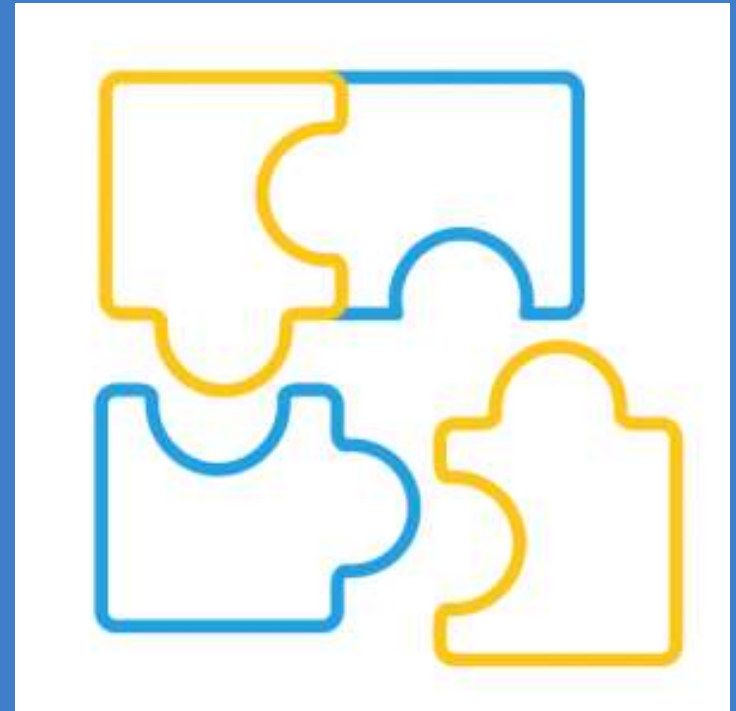
► *Int J Radiat Oncol Biol Phys*. 2012 Aug 1;83(5):e571-6. doi: 10.1016/j.ijrobp.2012.01.063.  
Epub 2012 Apr 13.

## Quantitative assessment of workload and stressors in clinical radiation oncology

Lukasz M Mazur<sup>1</sup>, Prithima R Mosaly, Marianne Jackson, Sha X Chang, Katharin Deschesne Burkhardt, Robert D Adams, Ellen L Jones, Lesley Hoyle, Jing Xu, John Rockwell, Lawrence B Marks

## Complementarity

- Creating a team that is effective
- Too much homogeneity detrimental to productivity
- Consistent with AAPM EDI initiative (true diversity and inclusion)



# Challenge

- Your skill sets
- Your thinking
- Your perceptions



## C-suite

- Medical physicists must in positions to influence the future
  - David Jaffray, PhD, FAAPM (*SrVP, Chief Technology and Digital Officer, MD Anderson Cancer Center*)
  - Jonas Fontenot, PhD, MBA, FAAPM (*Chief Operating Officer (COO), Mary Bird Pekins Cancer Center*)
  - Jim Dobbins, PhD, FAAPM (*Associate Vice Provost, Duke University*)



## Conclusions

- The future will be different
- Be proactive in shaping it
- Develop skills
- Challenge your status quo



**“The future cannot be predicted, but futures can be invented.”**  
**-Dennis Gabor, Nobel Laureate**

# Acknowledgements

