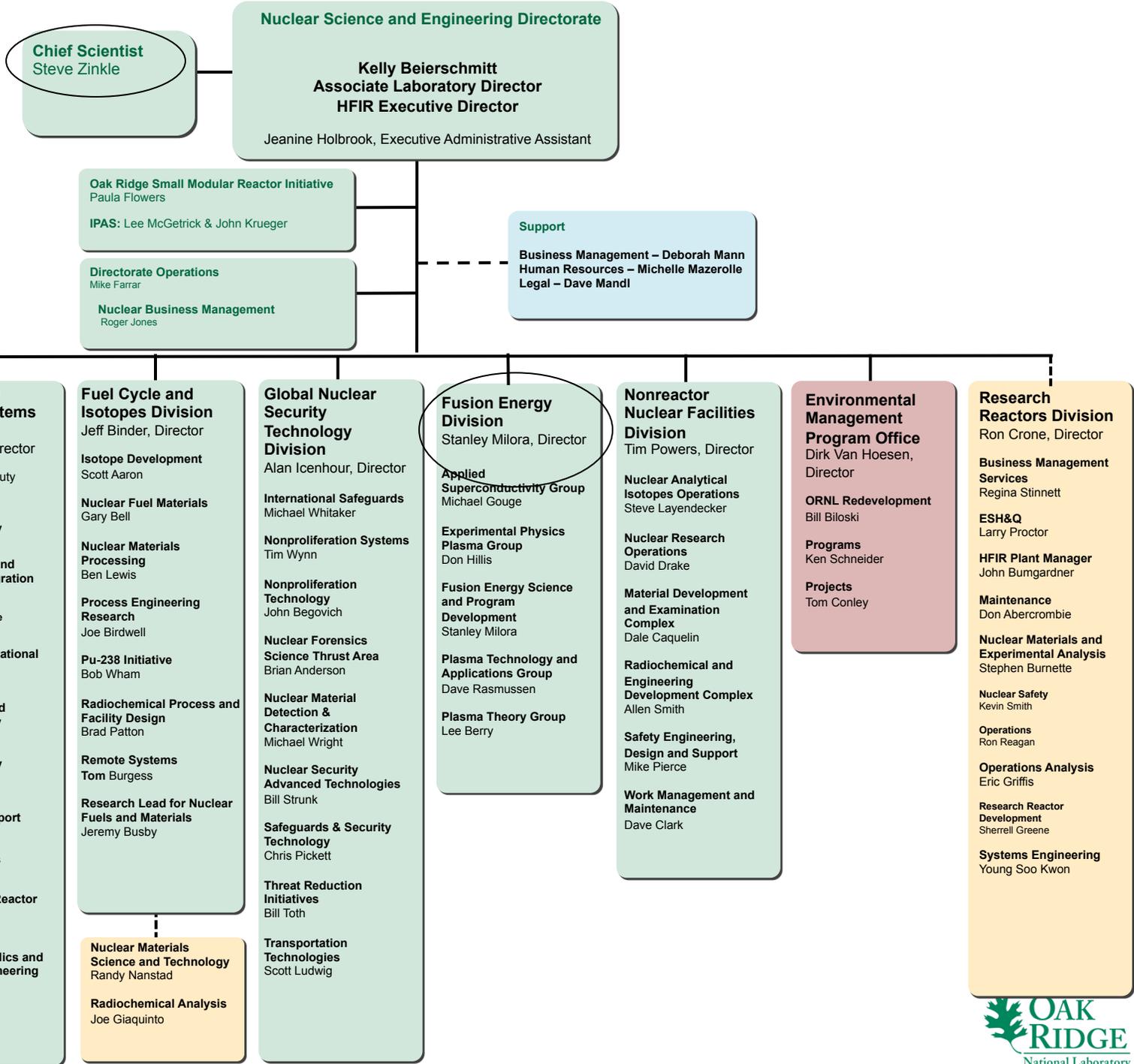


# Recent developments in fusion at ORNL

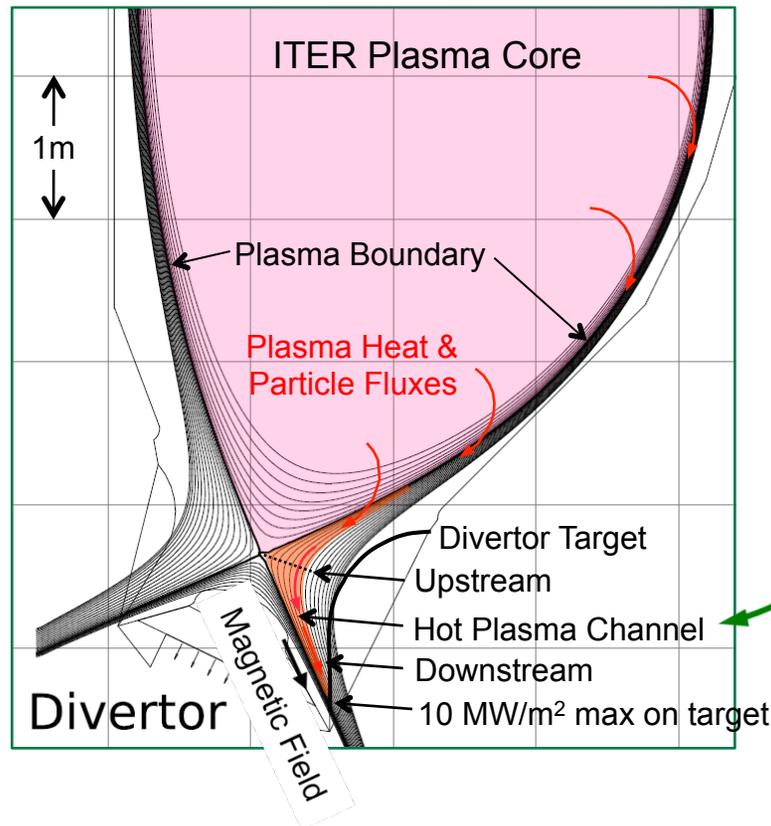


**Stan Milora**

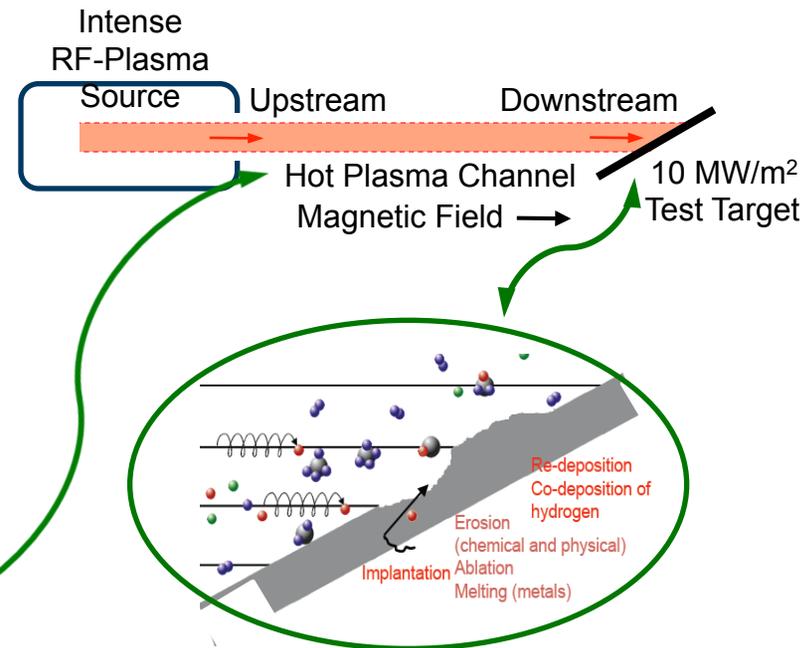


# Plasma Materials Test Station (PMTS) uses intense RF-plasma source in open field lines to simulate the Plasma Material Interface in fusion devices

**ITER Plasma Material Interface**



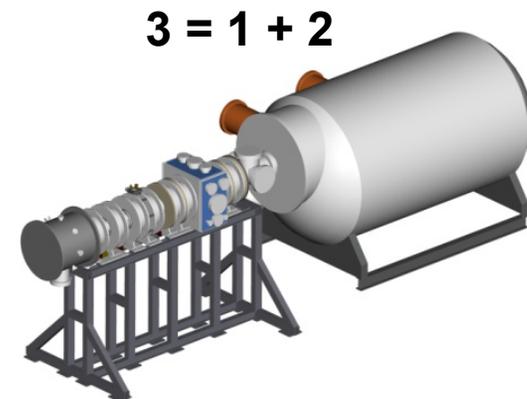
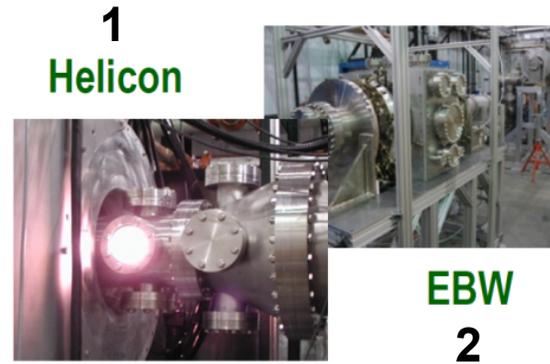
**PMTS Plasma Material Interface**



**Plasma Surface Interaction (PSI)**

# ORNL investments in high intensity plasma source development to enable PMI research

- FY10-11: LDRD 1 for Helicon high density plasma source, and LDRD 2 for electron heating experiments
- FY11: strategic hire (Juergen Rapp)
- FY12-13: LDRD 3 to test electron heating of over-dense plasmas produced by the Helicon plasma source



# Key contributions from ASIPP and modest additional infrastructure investment would turn LDRD 3 turns into the Prototype High Intensity Source Experiment (PHISX)

