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COMPANION DIAGNOSTICS AND CANCER BIOMARKERS
Deregulation of cell-cycle checkpoints is a feature of many different cancer types. WEE1 kinase plays an important role in the maintenance of these cell-cycle checkpoints by inhibiting cyclin-dependent kinase (CDK) activity. Through siRNA screening, it was found that cancer cells with defects in Fanconi Anemia (FA) and homologous recombination pathways were more sensitive to WEE1 inhibition. The cover image shows that WEE1 inhibition in cells depleted of FA protein FANCM resulted in increased replication stress (pan-nuclear γH2AX staining in green) and premature entry into mitosis (yellow). Phospho-histone H3 staining (red) was used to identify mitotic cells. DNA was counterstained with DAPI (blue). For details, see the article by Aarts and colleagues on page 865.