

follicles were subsequently crosslinked in a calcium sulfate solution. Follicles were then cultured for 8 days with light microscopy imaging taken every other day along with media exchanges. Follicles were then examined using immunofluorescence. Growth and survival curves were constructed and all statistical analyses were performed using Graph Pad Prism 9. RESULTS/ANTICIPATED RESULTS: A total of 372 follicles were encapsulated across 32 beads (16 in 1% alginate and 16 in 5% alginate). There were no differences in initial follicle size between the two conditions (33.53 μm vs. 32.45 μm , $p=0.47$). At the end of 8 days, there was no difference between follicle size (59.55 vs. 56.06, $p=0.48$). Additionally, there was no difference in survival between 1% and 5% alginate encapsulation (57.75% vs. 52.43%, $p=0.40$). Immunofluorescence is being performed on encapsulated follicles to confirm the presence of DDX4, a molecular marker of oocytes, after 8 days in culture. Additional encapsulated follicles have also been submitted for histologic sectioning and hematoxylin and eosin staining to better characterize the viability and health of these follicles after 8 days in culture. DISCUSSION/SIGNIFICANCE: There was no significant difference in growth or survival between primordial follicles cultured in 1% or 5% alginate gels. Immunofluorescent analysis confirmed the presence of viable follicles at the end of 8 days of culture. Future work needs to further explore how factors in the ovarian extracellular matrix impact follicle maintenance and growth.

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Predictors of Autologous Fat Grafting in Immediate, Implant-Based Breast Reconstruction

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OBJECTIVES/GOALS: Patients frequently need or desire fat grafting to improve common issues such as implant visibility and contour deformity, often done as a second, staged procedure following immediate reconstruction. This study aimed to identify which patient factors and reconstructive techniques predict the need for revision with AFG after IBBR METHODS/STUDY POPULATION: Patients who underwent IBBR with either tissue expanders or implants following mastectomy from 2017 to 2021 were identified. Demographics, comorbidities, and the postoperative course were reviewed. The primary outcome variable was AFG after the initial reconstruction. Univariate and regression analyses were performed to identify factors predictive of AFG. RESULTS/ANTICIPATED RESULTS: Five-hundred twenty-nine patients were included in our analysis, with 43% having AFG. Univariate regression displayed single-stage reconstruction (OR=0.53, 95% 0.37-0.75) and previous radiation (OR 0.59, 95% 0.35-0.99) negatively predicted the need for AFG, while bilateral breast reconstruction (BBR) was a predictor (OR 2.32, 95% 1.58-3.4). On multivariate analysis, decreasing age and BBR remained predictive of AFG. The odds of AFG decreased by 3% for every one-unit increase in age (95% CI [0.96, 0.99]). Interestingly, neither pre-pectoral breast reconstruction nor specimen weight:implant ratio was associated with increased need for AFG on univariate/multivariate analysis. DISCUSSION/SIGNIFICANCE: Patients requiring AFG were likely younger and had undergone BBR with tissue expanders. Plane of implant did not appear to affect need for AFG. Knowledge of these predictive factors may help plastic surgeons in preoperative counseling before implant-based breast reconstruction.

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Visiting endowed chair: a new model to support Hispanics junior investigators

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OBJECTIVES/GOALS: Analyze how the Endowment HIREC's Mentoring and Career Coach Model A productive mentoring relationship is essential to advance researchers into being independent and bring extramural funds. METHODS/STUDY POPULATION: Provide Hispanic researchers mentoring and career coaching to strengthen their pathway as researcher. The HiREC's Career Coach and Mentoring Component (CCMC) is an innovated approach to support long-lasting research mentoring relationships in our institution. This approach was developed to advance research to eliminate health disparities, promote multidisciplinary translational research in a Minority Institution and sustain research infrastructure and services, career, and workforce development initiatives. Promising Faculty are target and early and mid-career investigators interested in pursuing a research career. To implement the CCMC with the Visiting Endowed Chair a HiREC Advisory Leadership Group in Mentoring will be established, with researchers from Puerto Rico, and US mainland. RESULTS/ANTICIPATED RESULTS: Three Hispanic mid-career women from the School of Medicine and one from the School of Health Professions from the University of Puerto Rico received a HiREC Advanced Research Award of \$50,000. The awardees achieved their goals; completed their research plan, research infrastructure needs, peer-reviewed publications, and submission of a competitive grant. They also provided successful perspectives on mentoring relationships in a Minority institution. Each one showed the mentor's and mentee's experiences as fundamental for their research advancements, productivity, leadership, and successful results. HiREC's mentoring component with the Visiting Endowed Chairs improves a healthy work environment and expands the research agenda for each awardee sustaining the institutional research culture. DISCUSSION/SIGNIFICANCE: A productive mentoring relationship is essential to advance researchers into being independent and bring extramural funds. Four mentees received formal, long-term guidance and endowment funds for their research infrastructure requirements with successful outcomes. HiREC contributes to building up an institutional mentoring program.

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Participant Recruitment at OHSU: Equipping Researchers to Overcome Recruitment Challenges

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OBJECTIVES/GOALS: Under enrollment of trials is a continued challenge in clinical research. In response, the Oregon Clinical and Translational Research Institute (OCTRI), the CTSA at Oregon Health & Science University (OHSU), launched a central resource, OCTRI Recruitment, to equip researchers with the knowledge and tools needed for recruitment success. METHODS/STUDY POPULATION: OCTRI Recruitment focused programmatic development in response to the voice of OHSU researchers. In 2018, a