Age-Related Adverse Inflammatory and Metabolic Changes Begin Early in Adulthood

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Duke Pepper Center
Performance Across the LifeSpan (PALS) Study

- Examine patterns of age and sex-related differences in biological markers, physical function, and physical activity across the adult lifespan
- Longitudinally characterize changes in biological markers and the association of these changes with functional aging.

### PALS Study Baseline Enrollment

<table>
<thead>
<tr>
<th>Age Bins</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-39</td>
<td>51</td>
<td>50</td>
<td>101</td>
</tr>
<tr>
<td>40-49</td>
<td>53</td>
<td>50</td>
<td>103</td>
</tr>
<tr>
<td>50-59</td>
<td>53</td>
<td>49</td>
<td>102</td>
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<tr>
<td>60-69</td>
<td>100</td>
<td>101</td>
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</tr>
<tr>
<td>70-79</td>
<td>99</td>
<td>100</td>
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<tr>
<td>80+</td>
<td>188</td>
<td>100</td>
<td>288</td>
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</table>

Total Enrolled = 994
Conclusions

• Decrements in physical performance are detectable as early as middle age.

• Concentrations of immune and metabolic biomarkers predictive of impaired physical performance are associated with age, even in younger adults.
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