Introduction
The Mouse Cardiovascular Phenotyping Core of the UAB Diabetic Research Center has extensive expertise and equipments for sophisticated phenotyping of the cardiovascular system in mice using non-invasive echocardiography.

Equipment:
VEVO770 high resolution Echocardiography system (VisualSonic, Toronto, Canada) with an RMV 707B high frame rate scanhead.

Measurements
Systolic Function of left ventricle (LV):
- Shortening fraction
- Ejection fraction
- Cardiac output (calculated)
- Ventricular anatomy (wall thickness, LV dimension, LV mass, etc.)
- Optional EKV mode with double charge

Diastolic Function by Pulse Wave Doppler:
- Mitral Valve E wave to A wave ratio
- Deceleration time
- LV contraction time
- LV relaxation time
- LV ejection time

Pressure gradient after transverse aortic constriction
Pulse Wave Doppler measurement of blood flow in constriction site

Measurement of atherosclerotic lesion area
The image demonstrates the top wall, lumen and bottom wall of an innominate artery

Right heart (RV) and pulmonary artery:
- RV stroke volume
- Pulmonary Artery Diameter
- Wall Thickness Systolic
- Wall Thickness Diastolic
- Pulmonary acceleration time (PAT)
- Ejection time (ET)
- PAT/ET ratio
- Pulmonary TVI (the area under the flow curve)

Transverse aortic constriction (TAC) surgical service
TAC surgical procedure is the commonly used to create mouse model with LVl Pressure overload-induced cardiac hypertrophyand heart failure

Service charges (per mouse)

<table>
<thead>
<tr>
<th>Type of service</th>
<th>UAB-DRC member</th>
<th>Non-member</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV systolic function</td>
<td>$30</td>
<td>$60</td>
</tr>
<tr>
<td>LV diastolic function</td>
<td>$30</td>
<td>$30</td>
</tr>
<tr>
<td>Pressure gradient after TAC</td>
<td>$30</td>
<td>$60</td>
</tr>
<tr>
<td>RV and pulmonary artery hypertension</td>
<td>$30</td>
<td>$60</td>
</tr>
<tr>
<td>Atherosclerotic lesion area</td>
<td>$30</td>
<td>$60</td>
</tr>
<tr>
<td>TAC and Sham operation</td>
<td>$150</td>
<td>$150</td>
</tr>
</tbody>
</table>

Note: Except for TAC service, any second service will receive a 40% discount. The TAC charge does not include cost of animal husbandry.

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