FLEXCELL® FLEX JR.™ Tension System

Stretch cells in a Single Plate Baseplate or in real-time with a microscopy device.

- Computerized, vacuum-operated instrument that applies a defined controlled, static or variable duration cyclic tension to cells growing *in vitro*.
- Regulated vacuum deforms flexible membranes in Flexcell® 6-well culture plates and in Flexcell® microscopy devices.
- Simulate *in vivo* tissue strains and frequencies in cells from muscle, lung, heart, blood vessels, skin, tendon, ligament, cartilage, and bone.
- Contains state-of-the-art digital valve to automatically regulate and maintain vacuum to provide the specified strain regimen.
- Multiple frequency, amplitude and waveform changes can be programmed in one regimen.
- Waveforms available: static, sinusoidal, heart stimulation, triangular, square, custom (Fig. 5).
- Supplied with cylindrical Loading Posts to provide equibiaxial strain, to be used with 6-well **BioFlex® culture plates** (page 20) for 2D cell constructs or with 6-well **Tissue Train® Circular Foam culture plates** (page 22) for 3D cell constructs.
- System now works with Single Plate Baseplate Kits (SPBK-1000)
- Drives up to two independent FlexLink® remote compression and/or tension controllers.
- System works with **StageFlexer®, StageFlexer® Jr.** (page 12), **FlexFlow™** (page 14), and **Inverted StageFlexer I®** (page 13) microscope devices.*

Figure 4. FLEX JR.™ Tension System

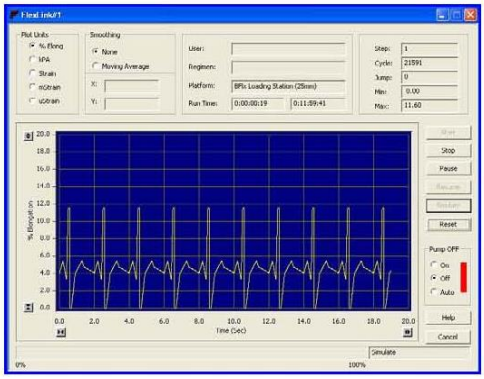

Figure 5. Waveform plot showing typical heart waveform

- Flex Jr.™ System includes:
  - Flex Jr.™ Tension FlexLink®
  - Laptop computer
  - FlexSoft® Flex Jr.™ Software
  - Single Plate Baseplate Kit
  - Tubing and Adaptor Kit

** Microscopy devices sold separately.*

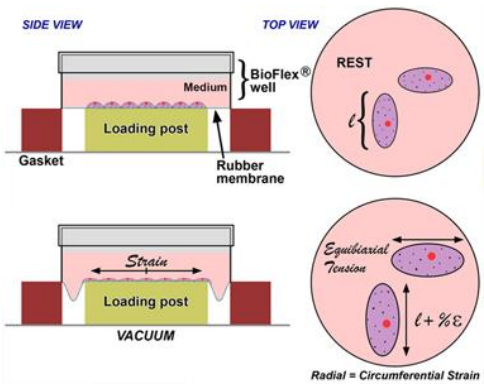

Figure 6. Equibiaxial strain application to cells in a well of a BioFlex® culture plate

Please note: For operation, the Flex Jr.™ Tension System requires a vacuum pump.

Dunn Labortechnik GmbH · Thelenberg 6 · 53567 Asbach · Germany
Tel. +49 (0) 26 83 / 4 30 94 · Fax +49 (0) 26 83 / 4 27 76 · e-mail: info@dunnlab.de · Internet: www.dunnlab.de