

## Introduction

We are proud to announce the first newsletter from the support-group at CD Leycom. We intend to launch a newsletter with useful information for current users 8 to 12 times a year. If you have any ideas for subjects to be discussed, please <mailto:support@cdleycom.com>.

More information about some subjects may be found on our website <http://www.cdleycom.com/> (see also hyperlinks in this newsletter). Create a user account and login as a member to get a lot of useful information.

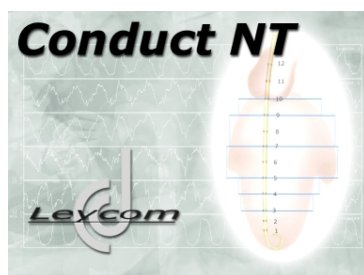
## Quantitative Cardiac Function Assessment In Small Animals

Announcing a new addition to the **CD Leycom**<sup>®</sup> range of equipment specifically designed for the acquisition and analysis of Pressure and Volume data from the intact heart.

The **SIGMA 1 SA**, single segment, data acquisition module; designed with mice in mind.

The compact **Sigma 1 SA** digital data acquisition module is small, light and easy to install. It connects simply and easily to any PC, via the USB port.

Supplied with the **Sigma 1 SA** is a windows software package **Conduct NT (M)** acquisition and analysis program. The **Conduct NT (M)** program is a user-friendly program that clearly displays real-time volume and pressure signals and, simultaneously, calculates and displays the main functional indices.



The windows software **Conduct NT** is based on the version that is already used with the clinically used machine, the CFL-512.

The Sigma 1 SA is compatible with Millar pressure volume catheters SPR-716 and SPR-719.

### Reference

Lips DJ, van der Nagel T, Steendijk P, Palmén M, Janssen BJ, van Dantzig JM, de Windt LJ, Doevendans PA. [Left ventricular pressure-volume measurements in mice: comparison of closed-chest versus open-chest approach.](#)

Basic Res Cardiol. 2004 Sep;99(5):351-9.

## Why Mechanical dyssynchrony?

[Mechanical dyssynchrony](#) is an important co-determinant of cardiac dysfunction in heart failure. Treatment, either medical, surgical, or by pacing, may improve cardiac function to a large extent by improving mechanical synchrony. Consequently the quantification of ventricular mechanical (dys)synchrony may have important diagnostic and prognostic value and may help to determine optimal therapy.

The CFL-512 is currently the only diagnostic device, which measures real-time operator independent ventricular dyssynchrony.

### References

Steendijk P, Tulner SA, Schreuder JJ, et al.

[Quantification of LV mechanical dyssynchrony by conductance catheter in heart failure patients.](#)

Am J Physiol Heart Circ Physiol. 2004;286:H723-30.

## Dual pressure sensor catheters

Use our dual pressure sensor catheters to accurately measure the pressure gradient over the aortic valve. For roughly € 200 more you have the ability to not only measure LV pressure and LV volumes, but also to measure arterial pressure simultaneously.

### When using dual pressure sensors

[Aortic stenosis](#) is a narrowing of the valve between the left ventricle and the ascending aorta causing a pressure gradient during systole.

A thickened septum, by HOCM, may cause a narrowing that can block or reduce the blood flow from LV to the aorta ("outflow tract obstruction").

Use dual pressure sensor to measure the pressure gradient continuously. (This option will be released in the software soon.)

### Reference

Dekker AL, Barenbrug PJ, van der Veen FH, Roekaerts P, Mochtar B, Maessen JG

[PV-loops in patients with aortic stenosis.](#)

J Heart Valve Dis. 2003 May;12(3):325-32.

## Contact CD Leycom

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