Methods: CHF was induced in two groups of male mongrel dogs by rapid right ventricu-
lar pacing at 240 beats per minute for 10 days. In an acute experiment cardiodinal
parameters were measured in conscious dogs at baseline and with two doses of BAY 41-
2272 (2 and 10 microgram/kg/min; N=6) and NTG (1 and 5 microgram/min; N=6),
respectively. Data are expressed as mean ± SEM. * indicates a p-value < 0.05.

Results: BAY 41-2272 reduced mean arterial pressure (from 113±8 to 107±9 mmHg),
prestenotic arterial pressure (from 149±7 to 139±6 mmHg), pulmonary arterial pres-
sure (from 29±2 to 22±2 and 20±2 mmHg), and increased cardiac output (from 2.1±0.2 to 2.2±0.3 and 2.3±0.2 L/min) and renal blood flow (from 131±17 to 145±18 and 162±18 ml/min). Plasma renin activity, angiotensin II, aldosterone, and
glomerular filtration rate remained unchanged. The properties were qualitatively identi-
cal to those of NTG. In contrast, whereas NTG reduced right atrial pressure (from
4.6±1.3 to 7.6±3.3 and 6.4±1.3 mmHg), it remained unchanged with BAY 41-2272. Fur-
thermore, in contrast to NTG, BAY 41-2272 slightly but significantly increased urine
flow (from 0.03±0.02 to 0.11±0.04 ml/kg/min).

Conclusion: BAY 41-2272 in this experimental model of CHF resulted in beneficial car-
diocerebral actions. Unlike NTG, it did not reduce right atrial pressure and it ac-

tion is associated with attenuation of expression of MMP-1 and

ApD,, respectively) and the peak L-type calcium current (I_{Ca,L}) were measured.

decreasing shortening in female myocytes at 1 pM.

p67phox NADPH oxidase expression in the I-R myocardium (all P<0.05). Conclusion:

ment also inhibited the upregulation of MMP-1 and attenuated lipid peroxidation and

p67phox subunit of NADPH oxidase and lipid peroxidation all increased in I-R regions (all

SIS that genistein produces different actions on male and female myocytes.

Methods: Left ventricular myocytes, isolated from weight-matched male and female

Results: Genistel increased cell shortening in male myocytes at 10 and 40 pM,

although the relative benefits for men and women are unknown. We tested the hypothe-

sis that genistein produces different actions on male and female myocytes.

Background: Increasing evidence shows that growth factors, especially transforming

growth factor-p, (TGF-p,). can protect myocardium from ischemia-reperfusion (I-R)

"g/kg. n=9) before reperfu-

sion with L-NAME was without effect (n=13). 1 FM Ral decreased the time to 90% APD

repolarisation from 89±5% of total APD to 78±5% (P<0.001, n=27) and the peak I_{Ca,L}

by 60±17% (P<0.001, n=8). Conclusion: Ral directly suppresses ventricular myocyte

contraction at a concentration dependent manner. 1 mM Ral decreased cell shortening by

33±2% (mean±SEM, P<0.001, n=14) and the Ca transient by 24±2% (P<0.001) compared with control values. These Ral

response changes were observed soon after intervention with 0.125 mg/kg (i.v), while induc-

tion with L-NAME was without effect (n=13). 1 mM Ral decreased the time to 90% APD

reperfusion (from 1.29±0.24 ms to 1.50±0.24 ms; P<0.05) and the peak I_{Ca,L} by

by 60±17% (P<0.001, n=8). Conclusion: Ral directly suppresses ventricular myocyte contractility at physiological concentrations through inhibition of NADPH oxidase. This appears to be mediated via the estradiol

receptor and may explain some of the cardioselective actions of Ral.