

**My Account**

Login  
Create Account

**Resources**

View All (813)

Adenoviruses (137)

Antibodies (175)

Bioimages (67)

Genomics Studies (145)

mESC Lines (68)

Mouse Strains (120)

Miscellaneous (46)

Protocols (55)

Research Data (4)

Resource Tags (389)

Visualization (9)

**Research & Cores**

Core Facilities (5)

Research Highlights (5)

Research Networks

Research Objectives

**Information**

About the BCBC

BCBC Events

Branding & Logos

Career Opportunities

Health

NIH hESC Registry

Policies & Guidelines

Member Publications

Research Programs



Research Investigators

Member Directory

Tutorials

## Rat pancreatic gene expression after culture in increasing glucose levels - Study GBCO3650

**Genomics Study Specifications**

<b>Study Name</b>	Rat pancreatic gene expression after culture in increasing glucose levels								
<b>Contact Name</b>	<a href="#">Jean-Christophe Jonas</a> (University catholique de Louvain)								
<b>Publication</b>	<a href="http://www.ncbi.nlm.nih.gov/pubmed/19165461">http://www.ncbi.nlm.nih.gov/pubmed/19165461</a>								
<b>My Strategies</b>	<a href="#">Return to My Strategies page</a>								
<b>Classification</b>	Cell stimulation/injury; Islet/beta-cell stimulation/injury								
<b>Links</b>	 <a href="#">Biomaterials Graph</a>  <a href="#">GEO</a>								
<b>BCBC Release Date</b>	August 11, 2009								
<b>Public Release Date</b>	August 11, 2009								
<b>Citation</b>	Bensellam M, Van Lommel L, Overbergh L, Schuit FC, Jonas JC. <a href="#">Cluster analysis of rat pancreatic islet gene mRNA levels after culture in low-, intermediate- and high-glucose concentrations.</a> Diabetologia. 2009. 52:463-76								
<b>Synopsis</b>	<div style="border: 1px solid gray; padding: 5px;"> <table border="1"> <tr> <td style="background-color: #e00000; color: white;">Study Description</td> <td>Goals</td> </tr> <tr> <td>Approaches</td> <td>Results</td> <td>Conclusions</td> </tr> <tr> <td colspan="3">Related Studies</td> </tr> </table> <p>Survival and function of insulin-secreting pancreatic beta-cells are markedly altered by changes in nutrient availability. In vitro, culture in 10 rather than 2mM glucose improves rodent beta-cell survival and function whereas glucose concentrations above 10mM are deleterious. The purpose of this study was to identify the mechanisms of such beta-cell plasticity; we tested the effects of a 18h culture at 2, 5, 10 and 30mM glucose on the transcriptome of rat islets precultured for 1 week at 10mM glucose (Affymetrix Rat 230.2 arrays).</p> </div>	Study Description	Goals	Approaches	Results	Conclusions	Related Studies		
Study Description	Goals								
Approaches	Results	Conclusions							
Related Studies									
<b>Platform types</b>	Expression microarray, Expression								
<b>Platforms</b>	<a href="#">Show platform Affymetrix GeneChip Rat Genome 230 2.0 Array</a>								
<b>Study Design Type</b>	<ul style="list-style-type: none"> <li>compound_treatment_design</li> </ul>								
<b>Study Factors</b>	<a href="#">Show study factors</a>								
<b>Study Assays</b>	<a href="#">Show study assays</a>								


**Access to Study Data**

This Study Data is publicly available to all users.


**Gene List(s)**

Use the following form(s) to refine the parameters and add the gene list to a strategy:

**Access Status**

 This resource is publicly viewable.

**Request this Resource**

 Request from a repository

Primary contributor: [Stoeckert Lab](#)


Co-contributed by:

- [Stoeckert Lab](#)

**Resource Tags**


Affymetrix GeneChip Rat Genome 230 2.0 Array, Aldob, Crem, Dbp, Ddit3, Fas, Fos, Hmox1, Mt1aH, Srebf1, Srebf2, Trib3, Txnip

 Login to edit tags

 Read more about tags

**Resource History & Actions**

Approved on Aug 11, 2009  
Last modified on Jan 17, 2012

 Login to edit or request an edit

**Related resources****BCBC**

No matching resources

**Other Consortia**

No matching resources

Data courtesy of [dkCOIN](#). Only public resources are displayed.

|Fold Change| Greater Than:

Confidence Level:

High Confidence  All Results 

*For a microarray experiment a result with high confidence has a confidence level of at least 80%.*

*For a ChIP-chip experiment a result with high confidence has a confidence level of at least 90% and all fold changes are positive.*

Reference (Denominator):

10mM Glucose Islet Culture

▶ [Rat islets cultured in 10mM versus 2 mM glucose](#)▶ [Rat islets cultured in 30mM versus 2 mM glucose](#)▶ [Rat islets cultured in 5mM versus 2 mM glucose](#)▶ [Rat islets cultured in 10mM versus 5 mM glucose](#)▶ [Rat islets cultured in 30mM versus 5 mM glucose](#)

## Genome Browser

*There are no genome browser tracks currently available for this study.*

## Lists of Locations

*There are no genomic location datasets currently available for this study.*

## Repositories

**Stoeckert Lab**

 Request this resource
Stock #: *Not provided*Availability Notes: *Not provided*

## Comments

*There are no comments for this entry.*


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