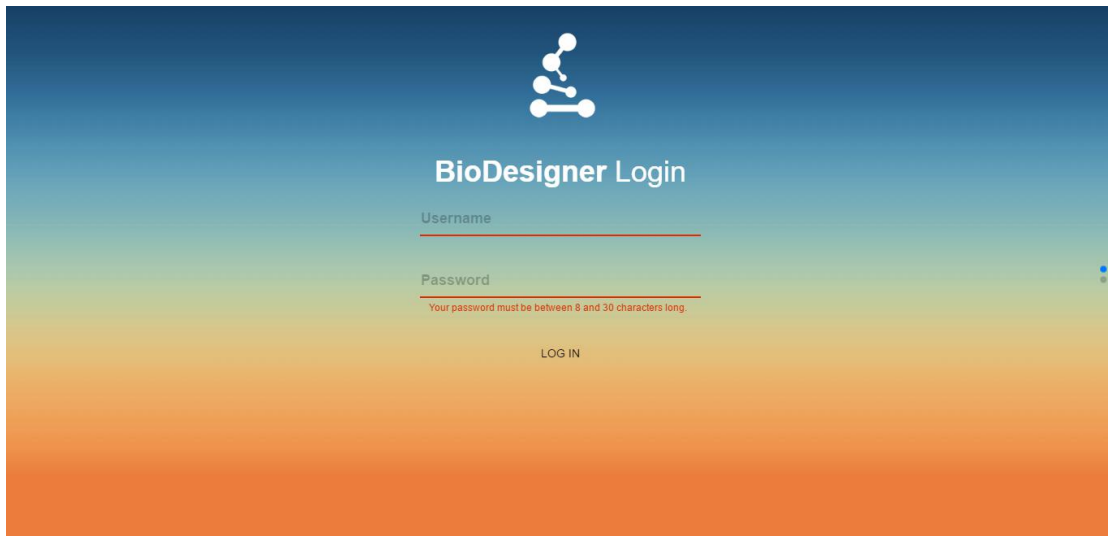
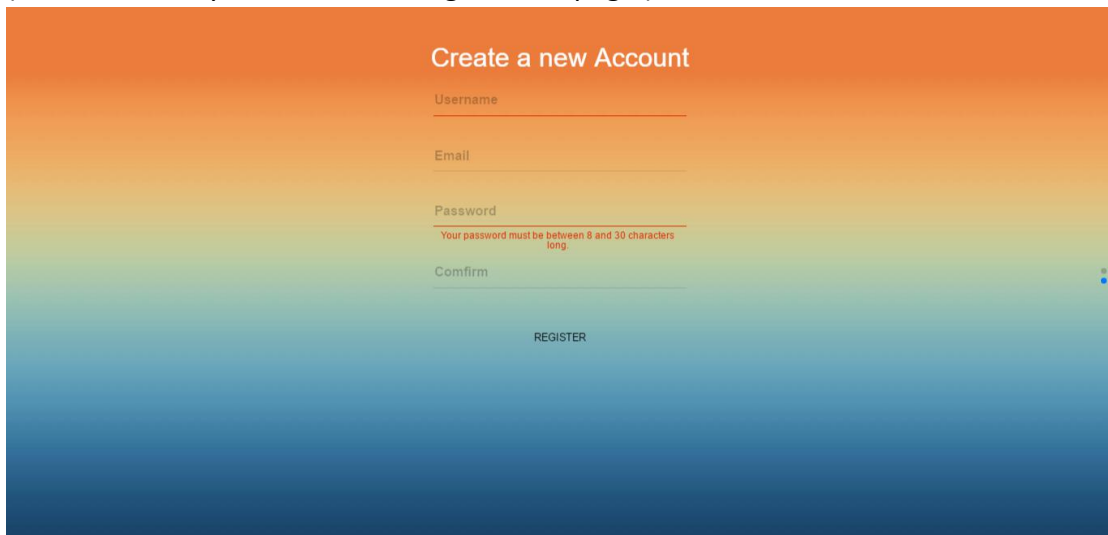


Visit our software at www.webonline.site

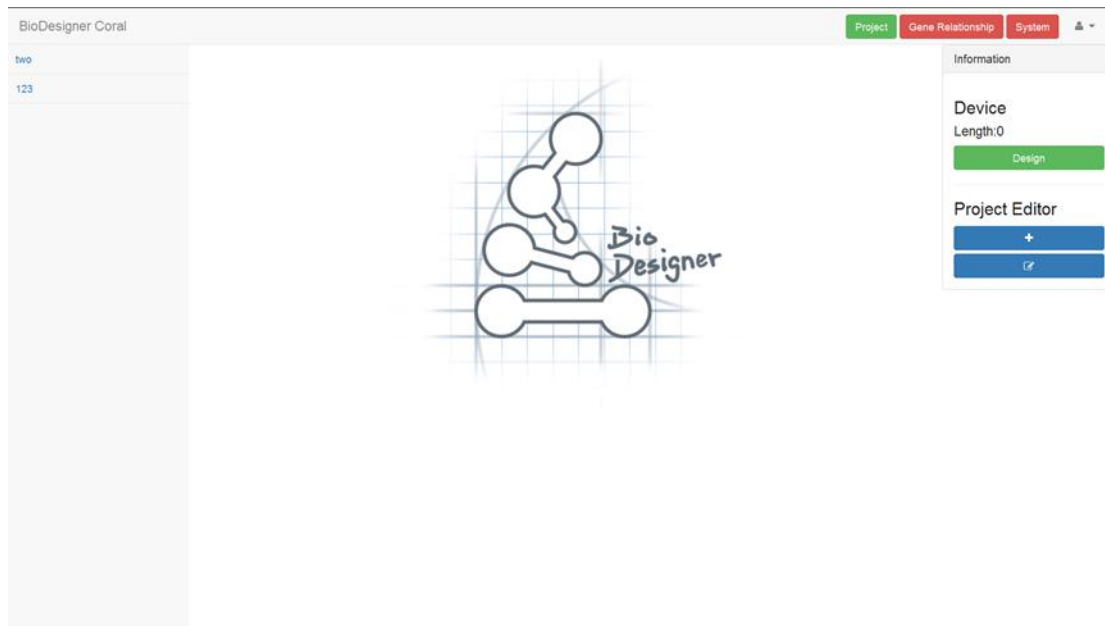
The image shows the BioDesigner Login page. At the top center is a logo consisting of three white circles connected by lines, resembling a molecular structure. Below the logo, the text "BioDesigner Login" is displayed in white. Underneath, there are two input fields: "Username" and "Password". The "Password" field has a red error message below it that reads "Your password must be between 8 and 30 characters long." At the bottom center, there is a "LOG IN" button. The background is a gradient of blue and orange.

Unregistered users should register an account by filling in the required information. (Roll down and you will see the registration page.)

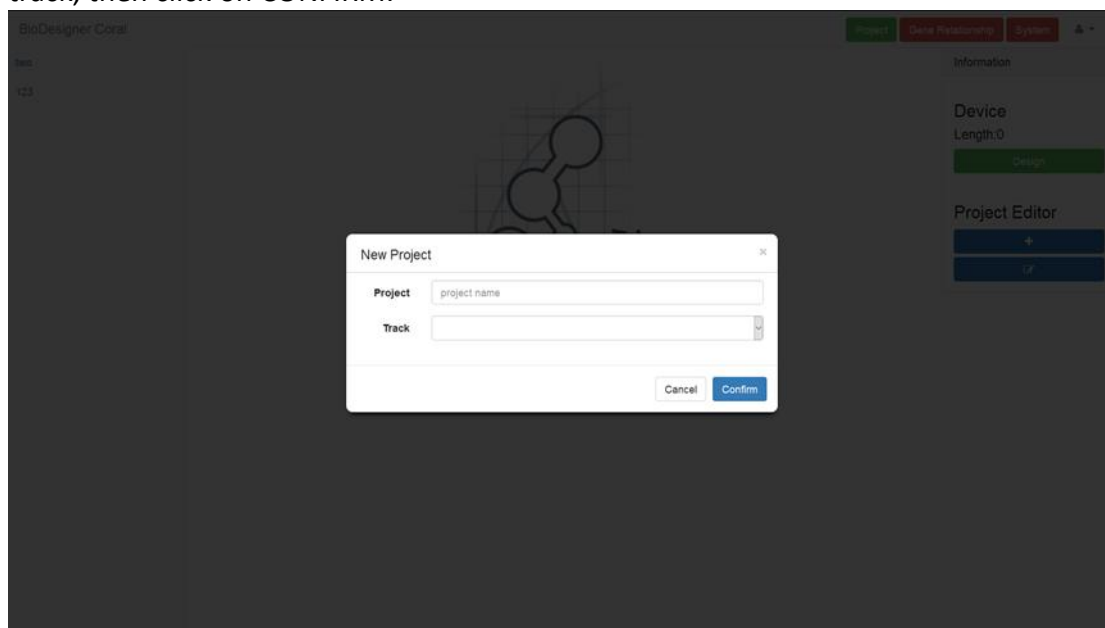
The image shows the "Create a new Account" page. The title "Create a new Account" is at the top center in white. Below it are four input fields: "Username", "Email", "Password", and "Confirm". The "Password" field has a red error message below it that reads "Your password must be between 8 and 30 characters long." At the bottom center, there is a "REGISTER" button. The background is a gradient of orange and blue.

Project

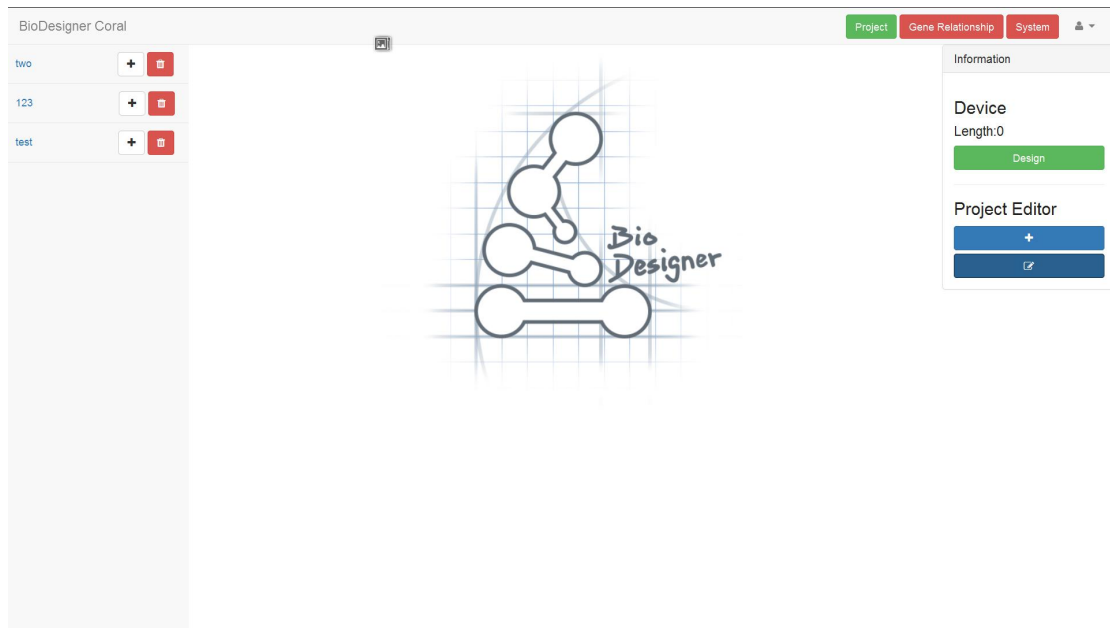
1. After you log in, you will see the home page. Your projects will be listed in the left navigation bar. The drop-down menu on the top right corner allows you to change your password or log out. Clicking on the button on top navigation bar, you can change to a different page.



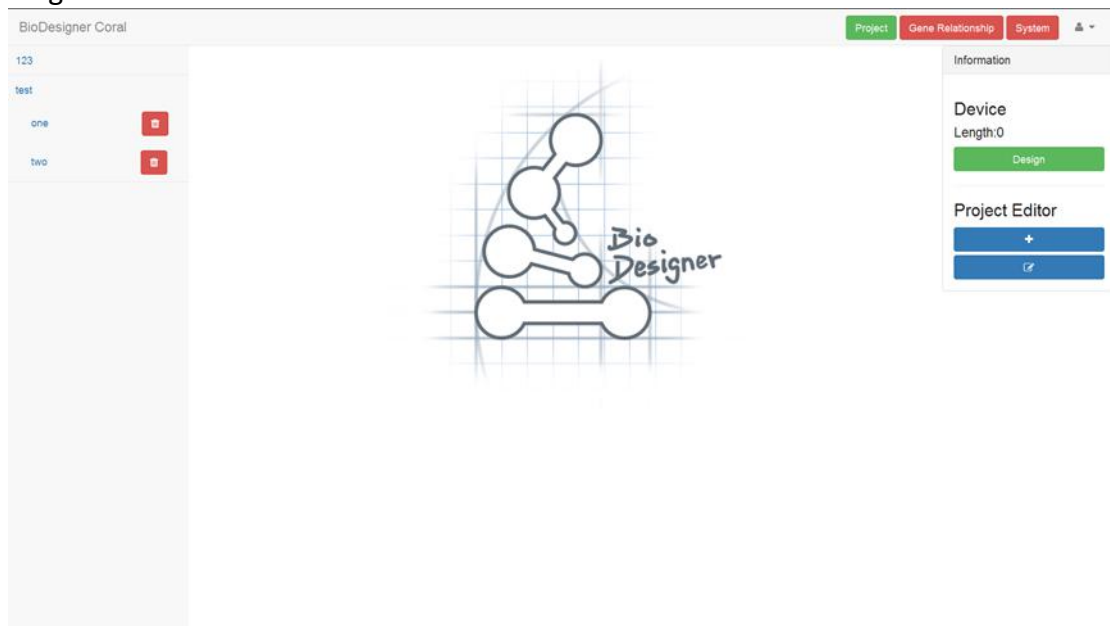
2. To design parts, you should first click on +, give a name to your project and select track, then click on CONFIRM.

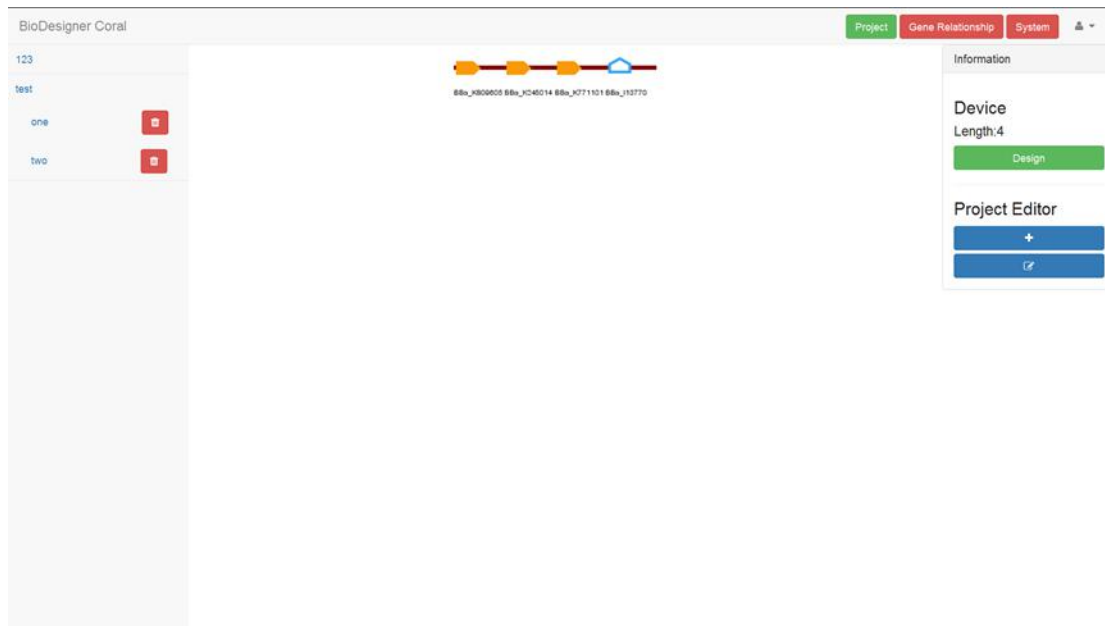


3. Click on the *Pencil* button, two new buttons which means *add* and *delete* will appear, following the name of your project. Clicking on the *Pencil* button again, *add* and *delete* button will disappear.



4. Click on *add* button, give a name to your device and confirm, then you can design your parts and device.
5. Click on the name of our project and you can see all the devices you created. Click on the name of your device, and you can see the simplified picture, as well as the length of it.

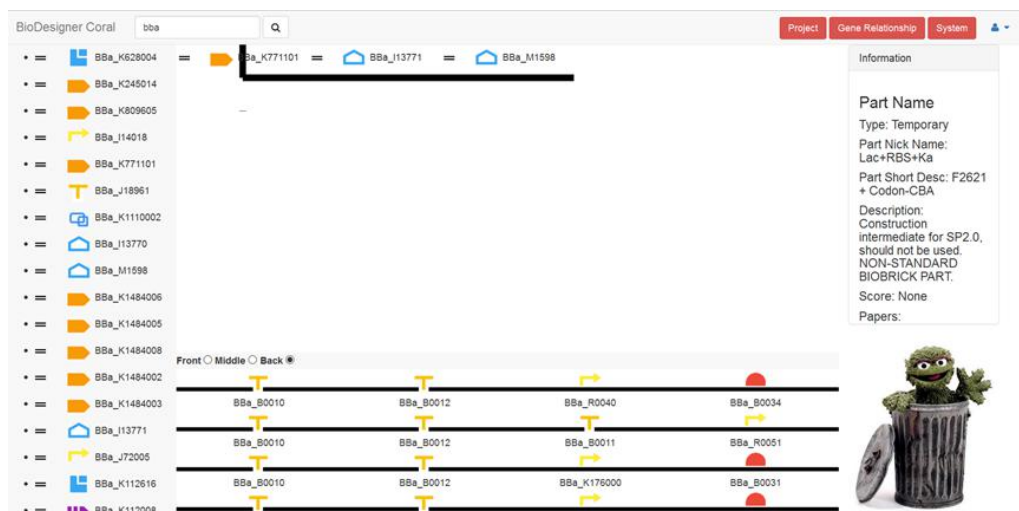




6. Click on the name of your device, then click on DESIGN button on the right side; the software will jump to the design page.

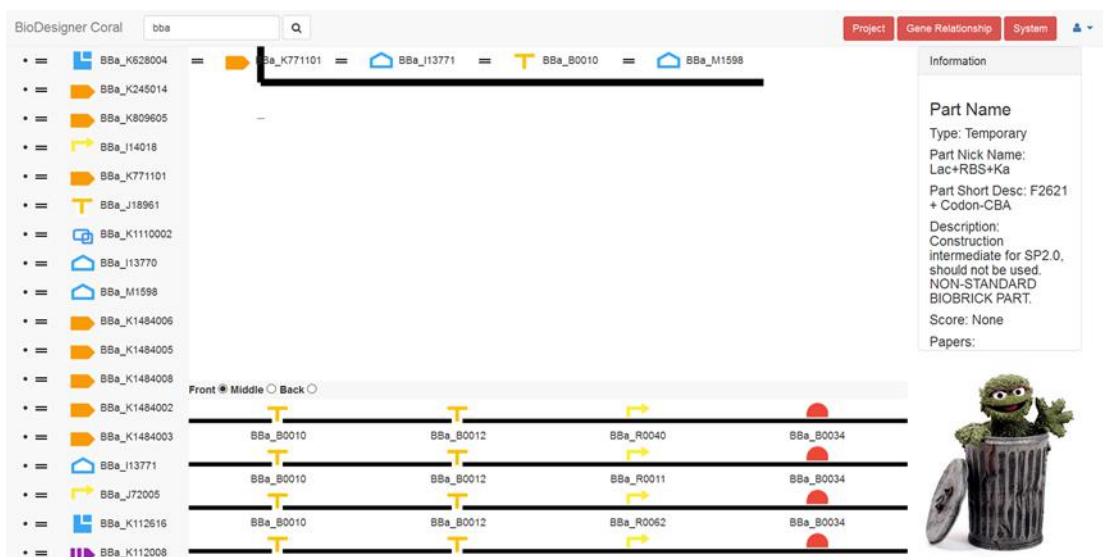
Design

1. You can choose what kind of recommendation you want. Click on *back*, *middle* and *front*, the software will recommend parts that may appear after the last part, in the middle of the last two parts, and in front of the last part of your device.
2. You can type in key words and search for parts in the searching box on the top left corner.
3. Put your mouse on the double lines beside a part. If you see a four-headed arrow, drag that part and drop it in where you want it to be. Clicking on any part on the canvas, you can see its information on the right side. To delete a part, put your mouse on the double lines beside that part, drag it into the dust bin below.



6. Once a part is added, recommendation will be generated automatically, if you

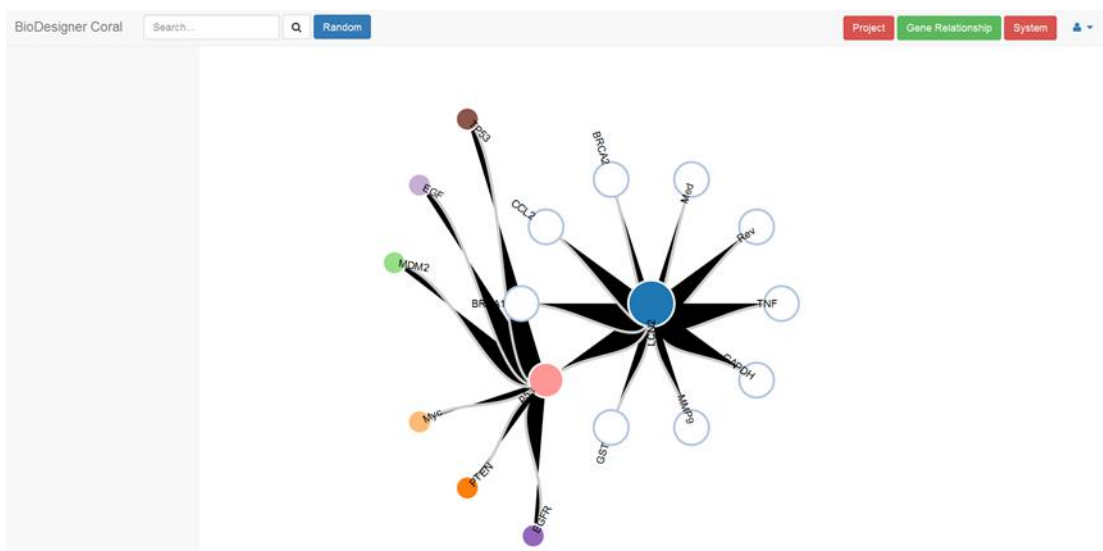
cannot see the results, try to change to another type of recommendation. Continue dragging the recommended parts and drop it to anywhere you want, not only the end of the chain. And you can freely switch two parts on the canvas.



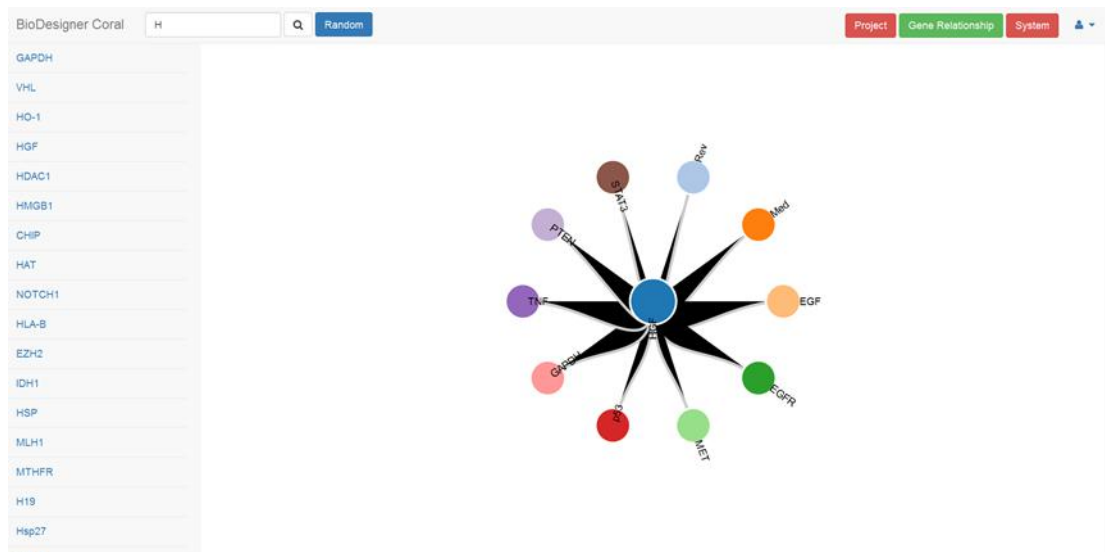
7. We provide real time saving. Your design will be automatically saved in the database.

Gene relationship

1. Click on Gene relationship button and you will see the Gene relationship page. The software will show you a gene randomly, and present its related genes. Click on any gene circles and you can see their related genes.



2. Input the name of a specific gene in the searching box, you can see a list of related genes. Click on them and they will appear in the middle of the screen.



3. Click on the line between two genes, you can see sentences which demonstrate their relationship. (The sentences also come from literatures)

BioDesigner Coral		Project	Gene Relationship	System	⬇
Relationship Detail	Base excision repair genes and risk of lung cancer among San Francisco Bay Area Latinos and African-Americans.				
Relation	MUTYH&OGG1				
Papers	total:4				
Relationship Detail	The Friedreich's ataxia protein frataxin modulates DNA base excision repair in prokaryotes and mammals.				

4. Right click the ball that represents a gene, you can see the detailed information of that gene. You can see literatures that contain information about that gene, as well as the related diseases. You can also have access to these literatures on ncbi. (The balls on the right side can also lead you to the detailed information of gene.)

BioDesigner Coral		Project	Gene Relationship	System	⬇								
<div>Basic Info</div> <div> name: Akt1 definition : thymoma viral proto-oncogene 1 organism: Mus musculus more ^_> </div>													
<div>Related Articles * Disease</div> <div>Related Articles</div> <table border="1"> <tbody> <tr><td>Group 1</td></tr> <tr><td>Group 2</td></tr> <tr><td>Group 3</td></tr> <tr><td>Group 4</td></tr> <tr><td>Group 5</td></tr> <tr><td>Group 6</td></tr> <tr><td>Group 7</td></tr> <tr><td>Group 8</td></tr> </tbody> </table>						Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
Group 1													
Group 2													
Group 3													
Group 4													
Group 5													
Group 6													
Group 7													
Group 8													

5. Literatures are categorized into several groups. If you choose related articles, click

on one group and you can see a list of literatures; click on the names and you can see the abstract and key words.

BioDesigner Coral

Project Gene Relationship System

Related Articles

Group 1

Pten Regulates Epithelial Cytodifferentiation during Prostate Development.

AKT1 Activation Promotes Development of Melanoma Metastases.

Stability and function of adult vasculature is sustained by Akt/Jagged1 signalling axis in endothelium.

FOXO1-mediated activation of Akt plays a critical role in vascular homeostasis.

Targeted disruption of fibrinogen like protein-1 accelerates hepatocellular carcinoma development.

paper link: [Targeted disruption of fibrinogen like protein-1 accelerates hepatocellular carcinoma development.](#)

keywords: Fibrinogen like protein-1, Hepatocellular carcinoma, Diethyl nitrosamine, Hepatoprotectant, Mitogen

abstract: Fibrinogen like protein-1 (Fgl1) is a predominantly liver expressed protein that has been implicated as both a hepatoprotectant and a hepatocyte mitogen. Fgl1 expression is decreased in hepatocellular carcinoma (HCC) and its loss correlates with a poorly differentiated phenotype. To better elucidate the role of Fgl1 in hepatocarcinogenesis, we treated mice wild type or null for Fgl1 with diethyl nitrosamine and monitored for incidence of hepatocellular cancer. We find that mice lacking Fgl1 develop HCC at more than twice the rate of wild type mice. We show that hepatocellular cancers from Fgl1 null mice are molecularly distinct from those of the wild type mice. In tumors from Fgl1 null mice there is enhanced activation of Akt and downstream targets of the mammalian target of rapamycin (mTOR). In addition, there is paradoxical up regulation of putative hepatocellular cancer tumor suppressors; tripartite motif-containing protein 35 (Trim35) and tumor necrosis factor super family 10b (Tnfrsf10b). Taken together, these findings suggest that Fgl1 acts as a tumor suppressor in hepatocellular cancer through an Akt dependent mechanism and supports its role as a potential therapeutic target in HCC. Copyright © 2015 Elsevier Inc. All rights reserved.

The insulin response integrates increased TGF- β signaling through Akt-induced enhancement of cell surface delivery of TGF- β receptors.

The GIPC1-Akt1 Pathway Is Required for the Specification of the Eye Field in Mouse Embryonic Stem Cells.

6. If you choose *disease*, you can see the names and information about that related disease.

BioDesigner Coral

Project Gene Relationship System

Related Articles Disease

Disease

schizophrenia

diabetes, type 2

methamphetamine abuse

disease name: methamphetamine abuse

paper link: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list_uids=15982448

disease class: CHEMDEPENDENCY

methamphetamine abuse schizophrenia

Parkinson's disease

lung cancer

Bipolar Disorder

Dyskinesia, Drug-Induced

plasma HDL cholesterol (HDL-C) levels

verbal learning, verbal memory, and regional cortical gray matter

System

1. Click on System button and you will see the system recommendation page.
2. On the left side, you can type in key words and search for parts or compounds.
3. Click on + beside the parts or compounds which you are interested. Click on Your Tags button, you can see the parts or compounds you just added. Click on RUN button, wait for a few seconds, and you can see the map of their relationship.

BioDesigner Coral

h

Run Your Tags

Project Gene Relationship System

Message

Compound Id: C14325
Name: Dibenzo[a,h]anthracene
Nick Names: 1,2,5,6-Dibenzanthracene
Mol Weight: 278.3466
Exact Mass: 278.1096
Formula: C22H14

Your Tags

H+ X Dibenzo[a,h]anthracene X

Cancel Remove All

2-Hydroxy-2H-benzo[h]chromene-2-carboxylate
1H-5alpha-Androst-2-eno[3,2-b]indole
1H-5alpha-Androst-2-eno[3,2-b]indol-17beta-ol

BioDesigner Coral

h+

Run Remove All

H+ x Dibenzo[c,h]acridine x Add a tag

Project Gene Relationship System

Message

Compound Id: C00001
Name: H2O
Nick Names: Water
Mol Weight: 18.0153
Exact Mass: 18.0106
Formula: H2O

2-Hydroxy-2H-benzo[h]chromene-2-carboxylate
1H-5alpha-Androst-2-eno[3,2-b]indol-17beta-ol

- Click on the nodes on the canvas, the information of corresponding gene or compounds will be shown on the right side.
- Click on REMOVE ALL button and the parts or compounds you chose will be deleted.