To Process Illumina Data Using ASCAT Processing (Using the BeadStudio or GenomeStudio Illumina Plug-in):

1. Download the plug-in from the link provided by BioDiscovery and install following the directions via prompts. If you do not already have the download link, you can visit the download page (http://www.biodiscovery.com/index/downloads) and select the appropriate download link from there.

2. From the BeadStudio or GenomeStudio menu bar select **Analysis->Reports->Report Wizard**

3. In the **Reports Wizard**, select **Custom Reports** and then select **Nexus Copy Number Input Report** from the dropdown. This wizard will create the sample descriptor file needed to load data into Nexus. Below the **Custom Report** dropdown is the **Report Settings** panel containing several fields that can be edited.

    a. Set **CreateProbeType** to **True** or **False** depending on whether you want to create probe mapping files for this data set. With these files, you can visualize the probes in the annotation track to see probe coverage. Please see the section on adding annotation tracks in the manual for instructions on how to do this.

    b. Type into the **FactorColumn** field, the Factors that you want to load into Nexus Copy Number. Values here correspond to the headers in the BeadStudio **Samples Table**. By default, **Gender** and **Genotype** are selected. Enter additional values as necessary and separate with commas.

    c. Select **True** or **False** for the **LaunchNexus** field depending on whether or not you want to start a new project. Select **True** if you are starting a new project. Select **False** if you have created a Nexus project previously and just want to add data to it.

    d. In the **NexusProjectOrganism** field type in the organism associated with your project. This organism name has to match a folder name in the **Organism** folder of the Nexus Copy Number installation directory. E.g. Organism/**Human**, Organism/**Mouse**, etc**.**

4. Click **Next** and on the subsequent screen, enter a name for this project report and specify a location to save files generated by this wizard. Several files will be saved here including the sample descriptor.

5. Click Finish to close the **Report Wizard**. If you selected **True** in the **LaunchNexus** field, Nexus will be launched and your samples will automatically be loaded and available in the **Data Set** tab. If you selected **False**, the **Report Wizard** will close and you will have to open Nexus manually. You would then open an existing project or a new project, click on the **Load** button, select **Load Descriptor**, and navigate to the location selected in the previous step and select the sample descriptor file to load your data into Nexus.

6. Click **View** to process your samples.

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