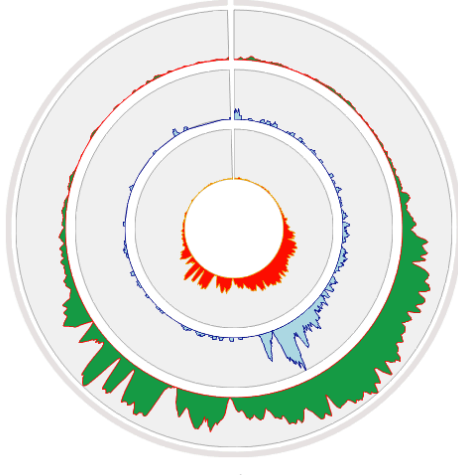
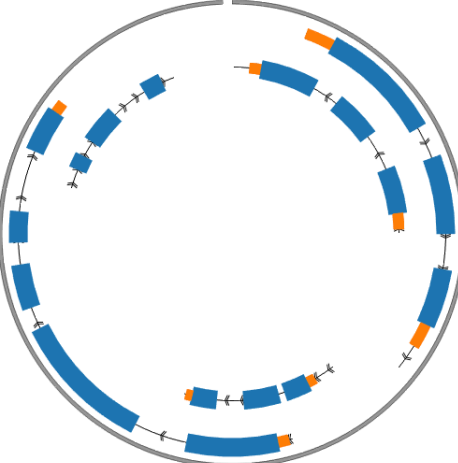
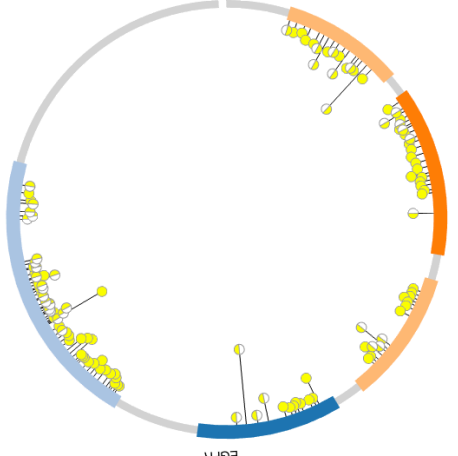
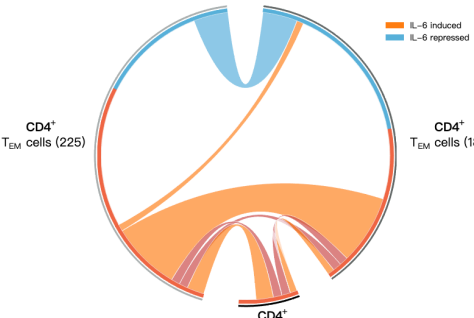
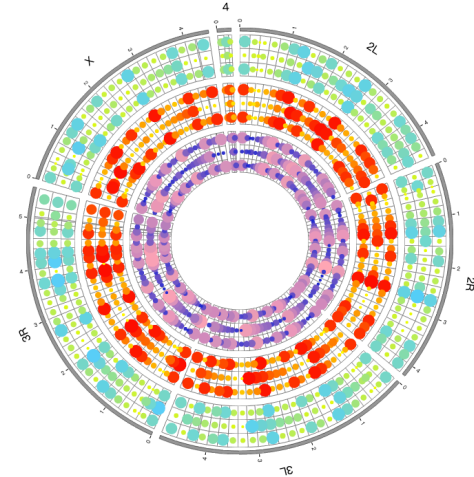
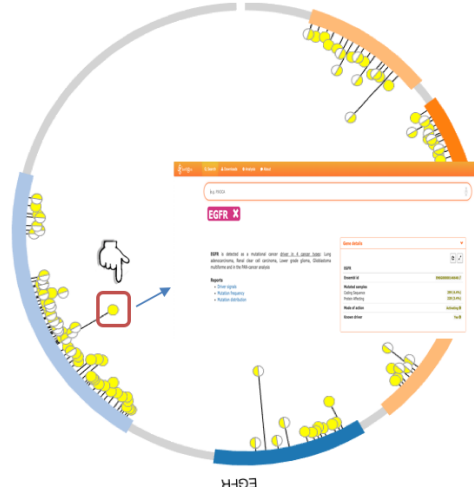
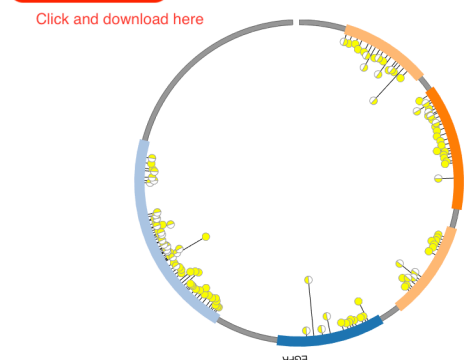
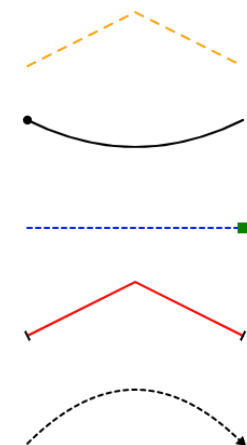
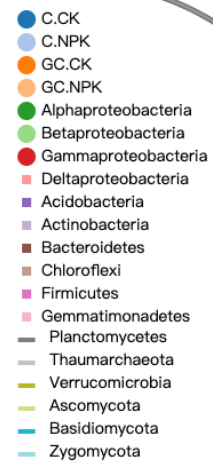
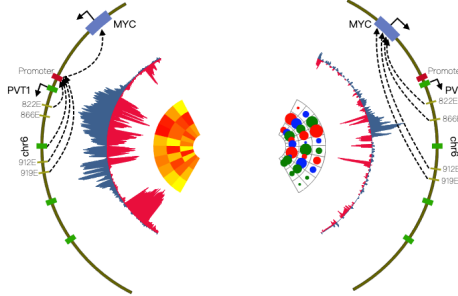
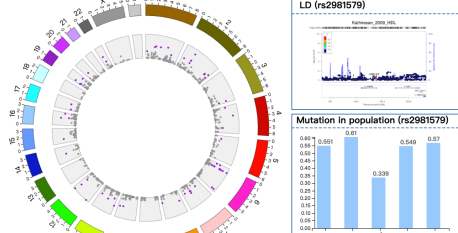


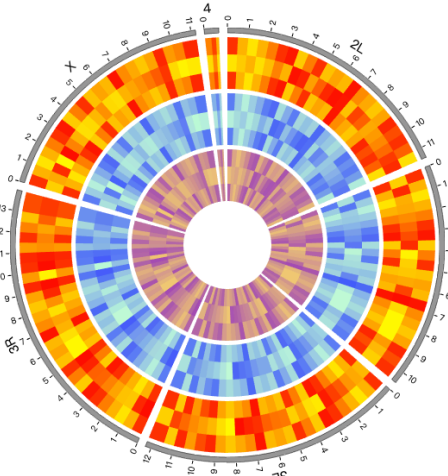
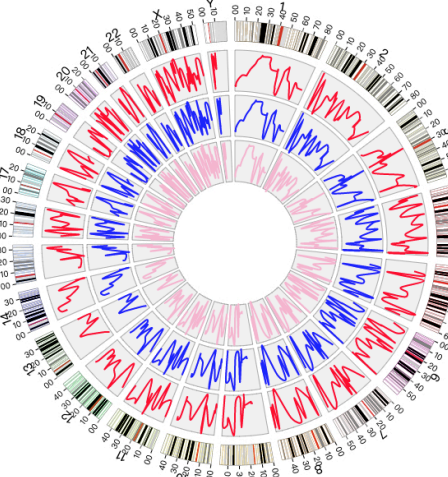
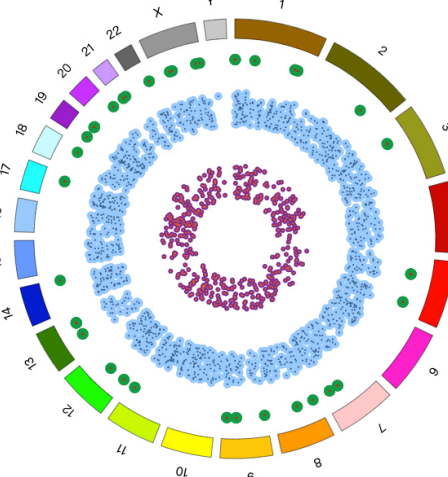
SUPPLEMENTARY INFORMATION

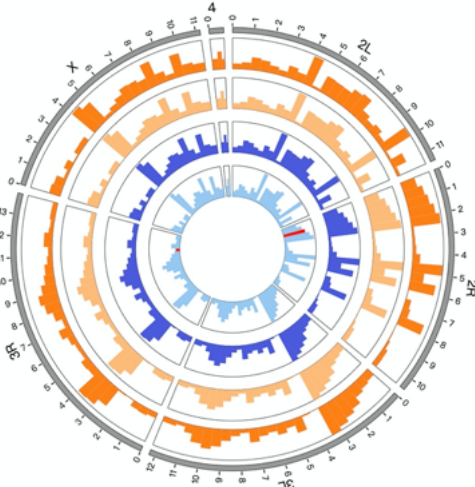
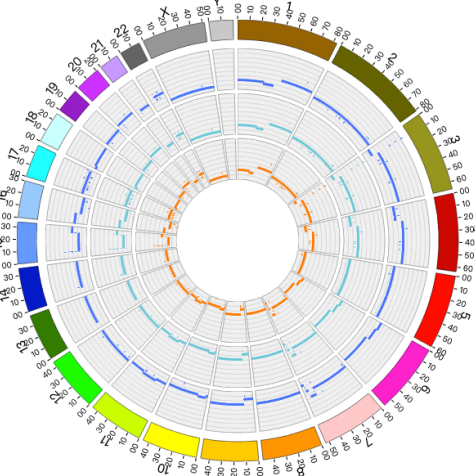
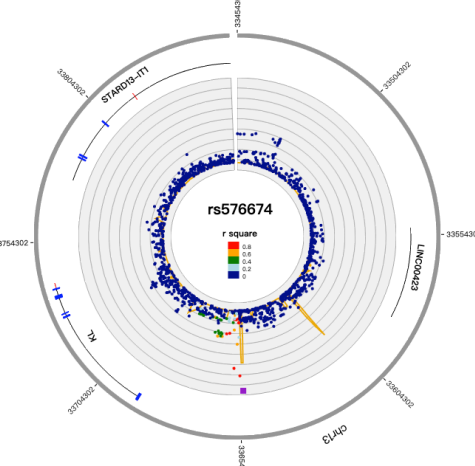
Supplementary Table 1. Function modules in NG-Circos.


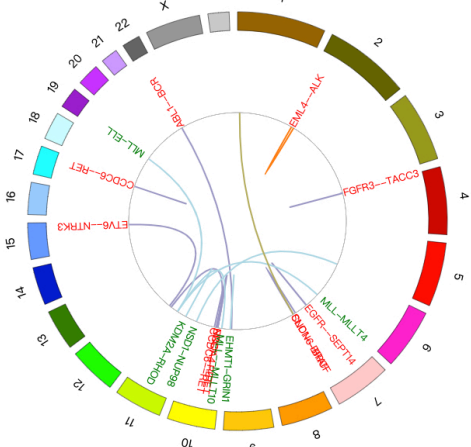
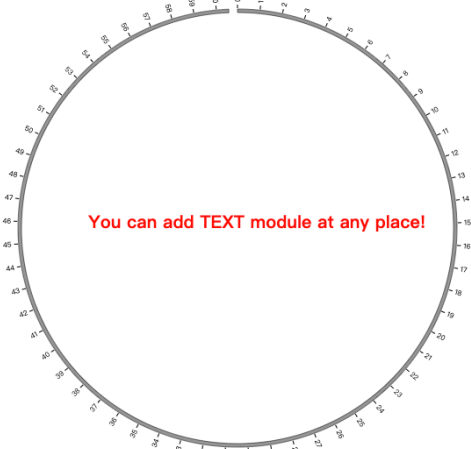
Module	In BioCircos.js	Function	Demo
WIG	No	Designed for WIG data format	 <p>A circular WIG plot for chromosome 8p. The plot consists of three concentric rings. The outermost ring is green, the middle ring is blue, and the innermost ring is red. The signal intensity is represented by the height of the bars in each ring, showing peaks and valleys across the chromosome. The label '8p' is at the bottom.</p>
GENE	No	Designed for GTF data format	 <p>A circular gene model for chromosome 8p. The plot shows a circular track with blue rectangular blocks representing exons and lines with arrows representing introns and the direction of transcription. The label '8p' is at the bottom.</p>
LOLLIPOP P	No	Draws Lollipop plot	 <p>A circular Lollipop plot for the EGFR gene. The plot shows a circular track with yellow dots representing mutations and lines representing the distance from the gene to the mutation. The label 'EGFR' is at the bottom.</p>

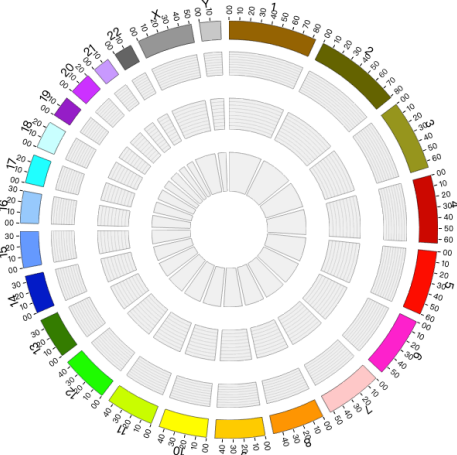
<p>CHORD</p>	<p>No</p>	<p>Draws chord plot</p>	
<p>BUBBLE</p>	<p>No</p>	<p>Draws bubble plot</p>	
<p>REDIRECT</p>	<p>No</p>	<p>Adds redirection function to graphic elements</p>	
<p>DOWNLOAD</p>	<p>No</p>	<p>Downloads PNG and SVG images</p>	<p>Download png Download svg </p> <p>Click and download here</p> 

<p>AUXILIARY LINE</p>	<p>No</p>	<p>Adds auxiliary lines (curve, straight, broken, dash, solid line) and markers (circle, square, arrow, stub marker)</p>	
<p>LEGEND</p>	<p>No</p>	<p>Adds figure legends</p>	
<p>COMPARE</p>	<p>No</p>	<p>Compares other modules in two conditions</p>	 <p>Functional PVT1 promoter Non-functional PVT1 promoter</p>
<p>COMBINATION</p>	<p>No</p>	<p>Combines other modules</p>	

<p>HEATMAP</p>	<p>Yes</p>	<p>Draws heatmap</p>	
<p>LINE</p>	<p>Yes</p>	<p>Draws line plot</p>	
<p>SCATTER</p>	<p>Yes</p>	<p>Draws scatter plot</p>	

<p>HISTOGRAM</p>	<p>Yes</p>	<p>Draws histogram</p>	
<p>CNV</p>	<p>Yes</p>	<p>Displays CNV data</p>	
<p>SNP</p>	<p>Yes</p>	<p>Displays SNP data</p>	

<p>ARC</p>	<p>Yes</p>	<p>Draws arcs</p>	
<p>LINK</p>	<p>Yes</p>	<p>Draws links</p>	
<p>TEXT</p>	<p>Yes</p>	<p>Adds annotation text</p>	

<p>BACKGR OUND</p>	<p>Yes</p>	<p>Adds background and axis circles for other modules</p>	 <p>The diagram is a circular chart with several concentric rings. The outermost ring is color-coded and contains numerical labels. The colors transition through a spectrum: purple, blue, green, yellow, orange, red, pink, and magenta. The inner rings are grey and appear to be a grid or a series of segments. The overall structure is circular and symmetrical.</p>
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Supplementary Table 2. Mouse events and corresponding trigger conditions in NG-Circos.

Mouse event	Trigger conditions
MouseClicked	Click on the graphic element.
MouseDown	Depress the mouse button on the graphic element.
MouseUp	Release the mouse button on the graphic element.
MouseEnter	Move mouse into the graphic element.
MouseLeave	Move mouse out the graphic element.
MouseMove	Move mouse over the graphic element.
MouseOut	Move mouse out of the selected graphic element and its child elements.
MouseOver	Move mouse into the graphic element and its child elements.
Zoom	(1) Zoom in and out using the mouse wheel; (2) double click.
Drag	Depress the mouse button on the graphic element and drag.