Course Title: Creating Scientific Figures with Adobe Illustrator

Course Length: 1 Day (6 hours total: 9:00 am – 12:00 pm & 1:00 – 4:00 pm)

Max. registration: 20 (will be repeated if capacity exceeded).

Target Audience: Scientists, researchers, and students aiming to produce publication-ready scientific figures.

Items in green will be taught by Martha Marchini
Items in red will be taught by Jovel

Course Outline

1. Introduction to Adobe Illustrator for Science (9:00 – 9:30 am)

- Overview of Adobe Illustrator's interface
- Understanding the role of Illustrator in scientific visualization
- Examples of high-quality scientific figures

2. Basic Tools and Techniques (9:30 – 10:00 am)

- Drawing tools (shapes, lines, pen tool)
- Layers and grouping for effective figure organization
- Artboards: Using multiple artboards for different figure panels
- Practical Exercise: Create basic visual elements (e.g., bar charts, simple illustrations)

3. Importing and Organizing Data Visualizations (10:00 – 10:30 am)

- Importing data graphics from tools like Excel, GraphPad, or R
- Cleaning up imported vector graphics
- Combining graphs into cohesive figure panels
- Practical Exercise: Import a sample chart and edit it for clarity

Coffee break (10:30 – 11:00 am)

4. Working with Colors and Styles (11:00 – 11:30 am)

- Choosing effective color schemes for scientific clarity (e.g., colorblind-friendly palettes)
- Using gradients and transparency to add depth
- Best practices for consistency in color and line styles
- Practical Exercise: Apply color schemes to an imported figure

5. Typography and Labels (11:30 am – 12:00 pm)

- Adding titles, axis labels, and annotations
- Choosing appropriate fonts for readability
- Creating consistent text styles across panels
- Practical Exercise: Annotate an existing figure with labels and titles

Lunch break (12:00 – 1:00 pm)

6. Advanced Techniques for Figure Panels (1:00 – 1:30 pm)

- Aligning and arranging multiple panels for cohesive figure sets
- Using clipping masks and compound paths
- Adding icons or schematics to enhance storytelling
- Practical Exercise: Assemble a multi-panel figure

7. Exporting Figures for Publication (1:30 – 1:45 pm)

- Export settings for different outputs (e.g., journals, presentations, posters)
- Understanding file formats (EPS, TIFF, PNG, PDF)
- Practical Exercise: Export a figure for journal submission

8. Hands-On Project: Creating a Full Figure (1:45 – 3:00 pm)

- Participants create a complete scientific figure using provided data or their own
- Individual guidance and troubleshooting
- Group feedback and discussion

Coffee break (3:00 – 3:30 pm)

9. Wrap-Up and Tips for Efficiency (3:30 – 4:00 pm)

- Illustrator shortcuts for faster workflows
- Common pitfalls and how to avoid them
- Resources for continued learning

Course Outcome: Participants will be able to create professional, publication-ready scientific figures using Adobe Illustrator, incorporating best practices in visualization and design.