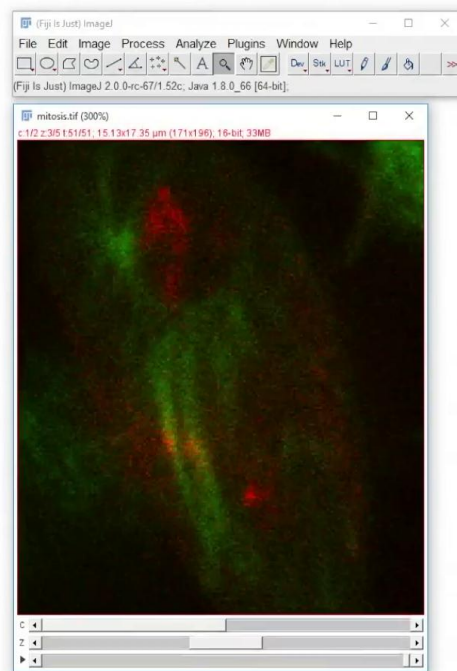


Working With Fiji



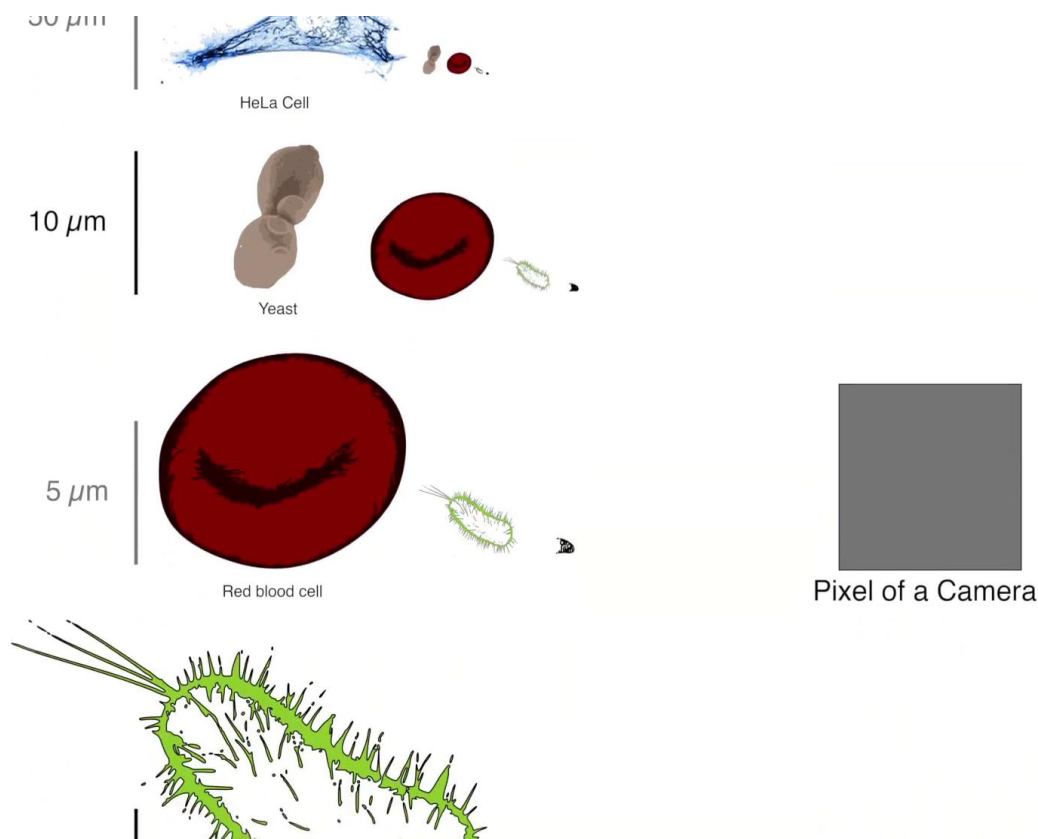
Microscopy has greatly evolved since its first iterations, and has moved from a qualitative to a quantitative technology. It's not only about making nice images, it's about finding ways to harvest information out of them. We humans are naturally excellent at image analysis. Therefore, human measurements have long been the 'gold standard' of the microscopy world. This is fine as long as the amount of data remains small. However, it causes issues when results need to be reproduced from someone else. Moreover, with new techniques constantly pushing the limits of resolution, acquisition speed and multiplexing, data size has constantly increased to the point that human measurements become either too cumbersome, or even impossible to perform in a reasonable amount of time.

Notes

Summary



0m 04s

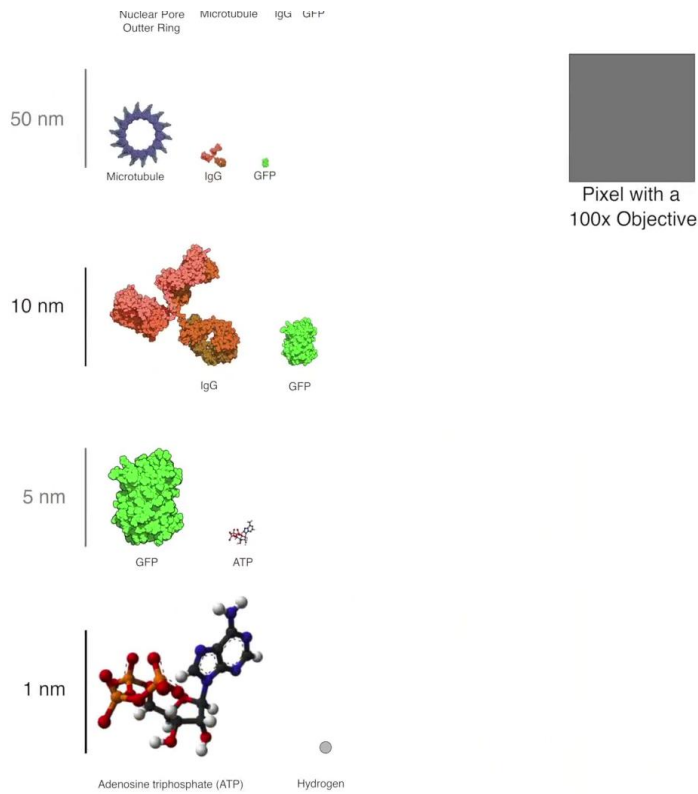


As a consequence, computer based image analysis is key in order to cope with the typical amount of data and be able to share and reproduce the analysis strategies. This is why we've created this course of Image Analysis for Life Scientists. It aims to cover basic principles of image analysis with emphasis on life sciences and light microscopy examples. We cover basic needs in image processing and analysis of a life scientists. And we highlight best practices, to avoid known pitfalls and sources of bias. This course will link the practical and experimental aspects of microscopy with the need for automated reproducible image analysis workflows. During each week, we will cover different aspects ranging from image formation to batch processing of image data. As a software backbone to demonstrate the concepts, we've chosen Fiji: an extremely versatile, scriptable open source image analysis solution. The theoretical aspects of the course are meshed with implementations, and example use cases within Fiji. When relevant, we will also point out other softwares of interest. However, all principles you'll learn here are applicable within any image analysis package. This course requires no particular engineering or programming background, but knowledge of basic biology and microscopy can help you to understand the motivation behind the concepts and exercises.

Notes

Summary





We will be using the ImageJ Macro language to showcase image analysis automation, which is readily understandable to non-programmers. We look forward to having you in our course.

Notes

Summary



2m 32s