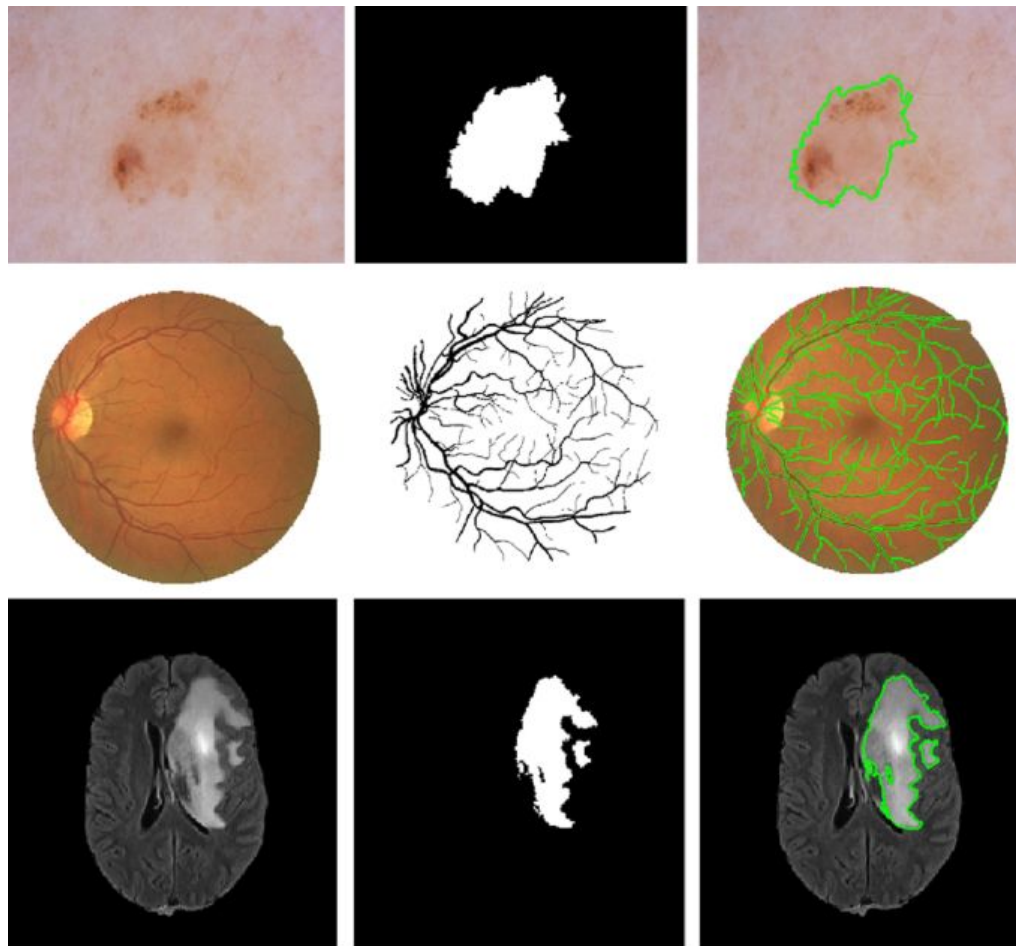


# Segmentación de imágenes médicas

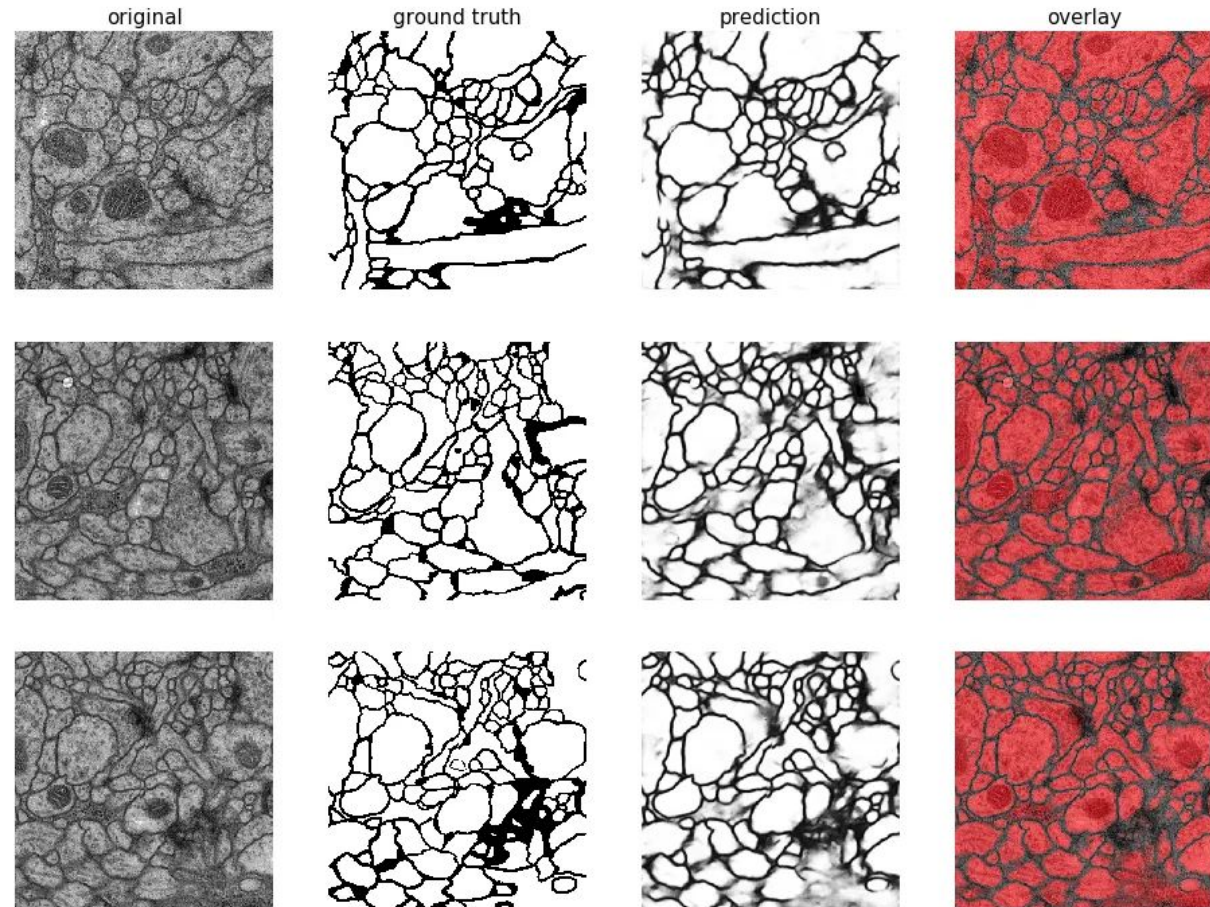
Olaf  
**Ronneberger**  
*et al.*,  
**2015**



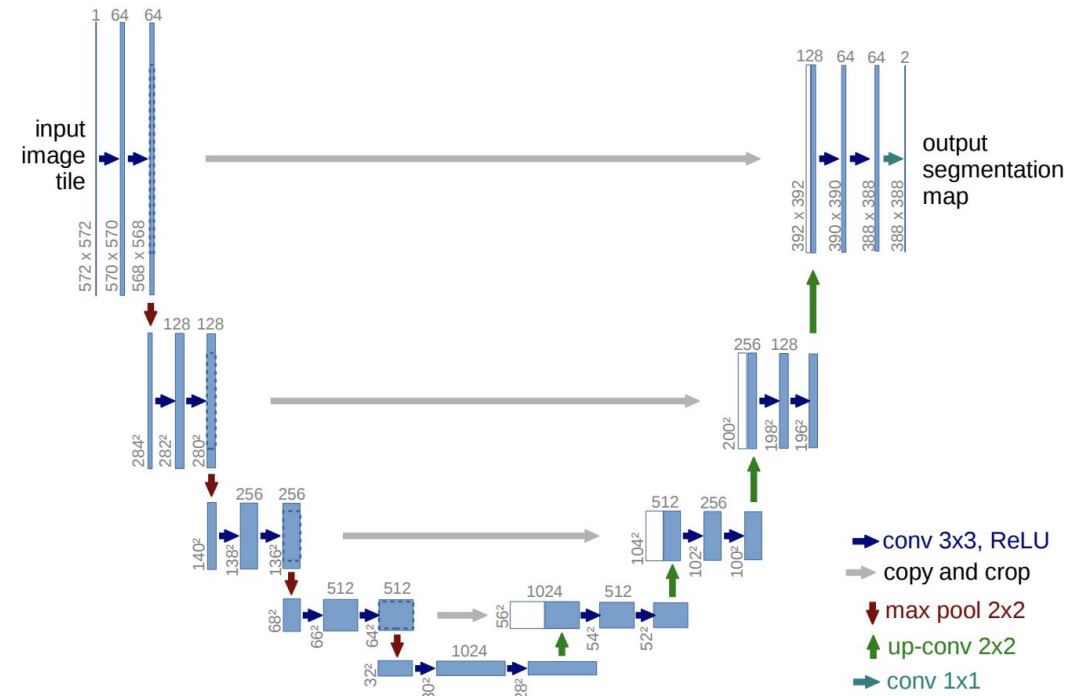
# Segmentación de imágenes



# Segmentación con U-Net




# Segmentación con U-Net



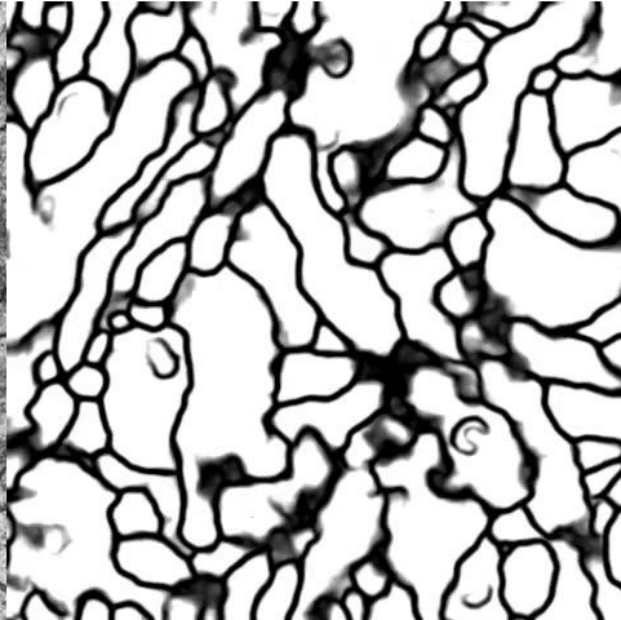
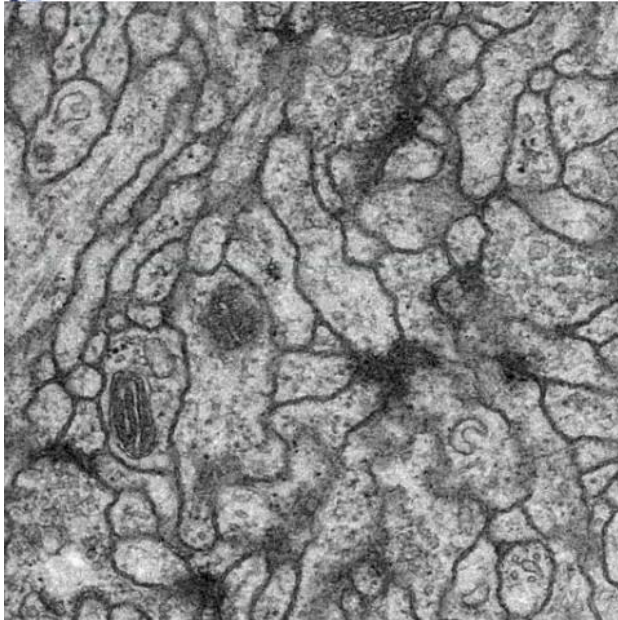
**Fig. 1.** U-net architecture (example for 32x32 pixels in the lowest resolution). Each blue box corresponds to a multi-channel feature map. The number of channels is denoted on top of the box. The x-y-size is provided at the lower left edge of the box. White boxes represent copied feature maps. The arrows denote the different operations.



# Segmentación con U-Net




## Our Results



Input image

Our result: 0.000353 warping error  
(**New best score** at submission march 6th, 2015)  
Sliding-window CNN: 0.000420  
Training time: 10h, Application: 1s per image

Olaf Ronneberger, University of Freiburg, Germany, 22.5.2015



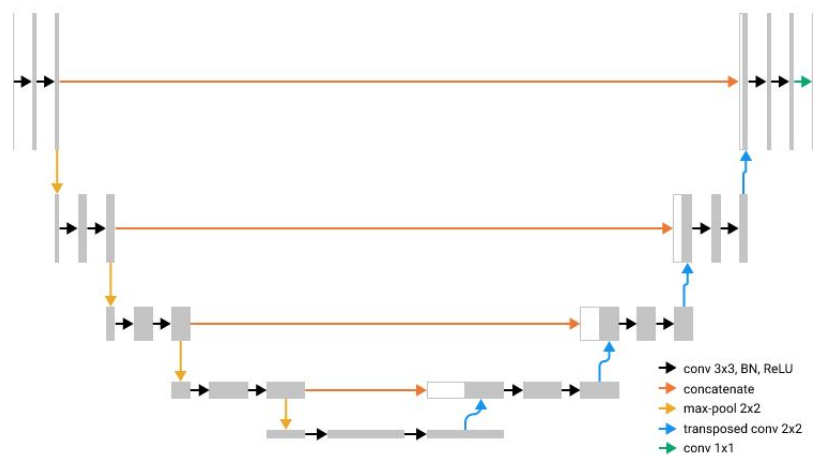
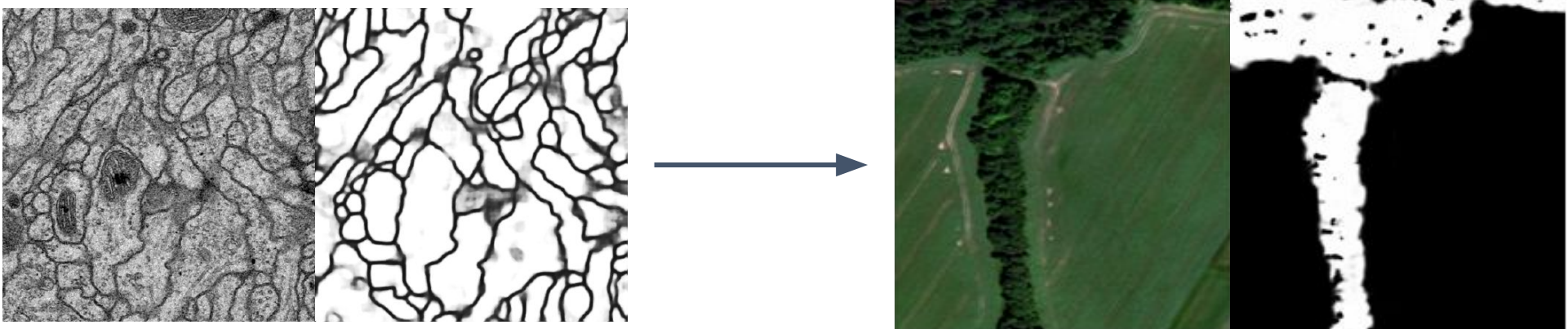
*Caso de estudio*

# Prevención de incendios



<https://omdena.com/projects/ai-prevent-forest-fires/>

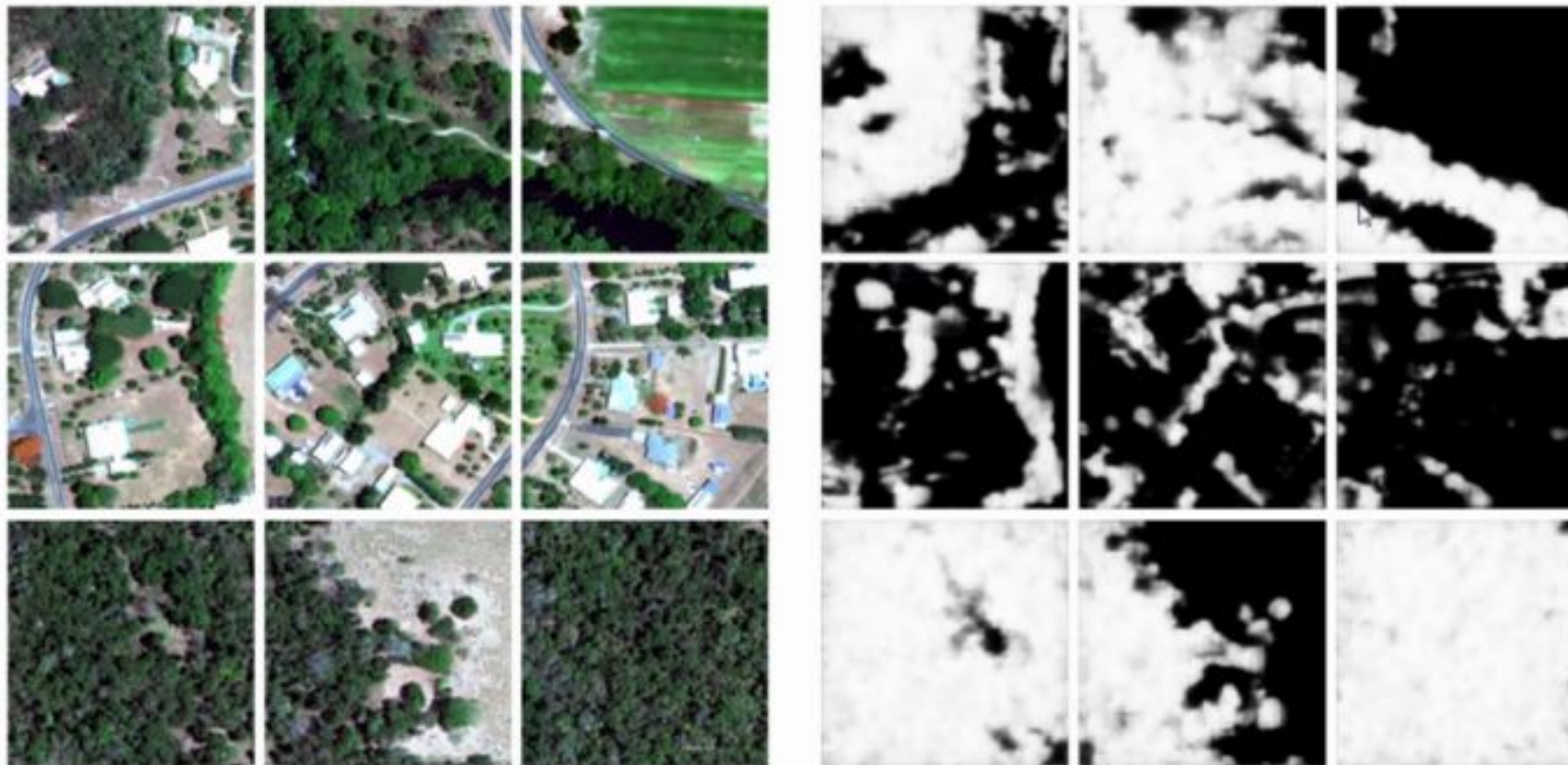




**U-Net:** Convolutional Networks for Biomedical Image Segmentation.

# Prevención de incendios

- **Omdena + Spacept**, una startup sueca
- 36 colaborador@s a nivel global (al menos 3 mexicanos)
- Dataset de 200 imágenes satelitales (Australia)
- Desarrollamos un modelo con 95% de precisión
- Desarrollamos un módulo que preprocesa imágenes
- **iResolvimos el challenge!**



<https://omdena.com/projects/ai-prevent-forest-fires/>