

# Quintessa

Linus Head

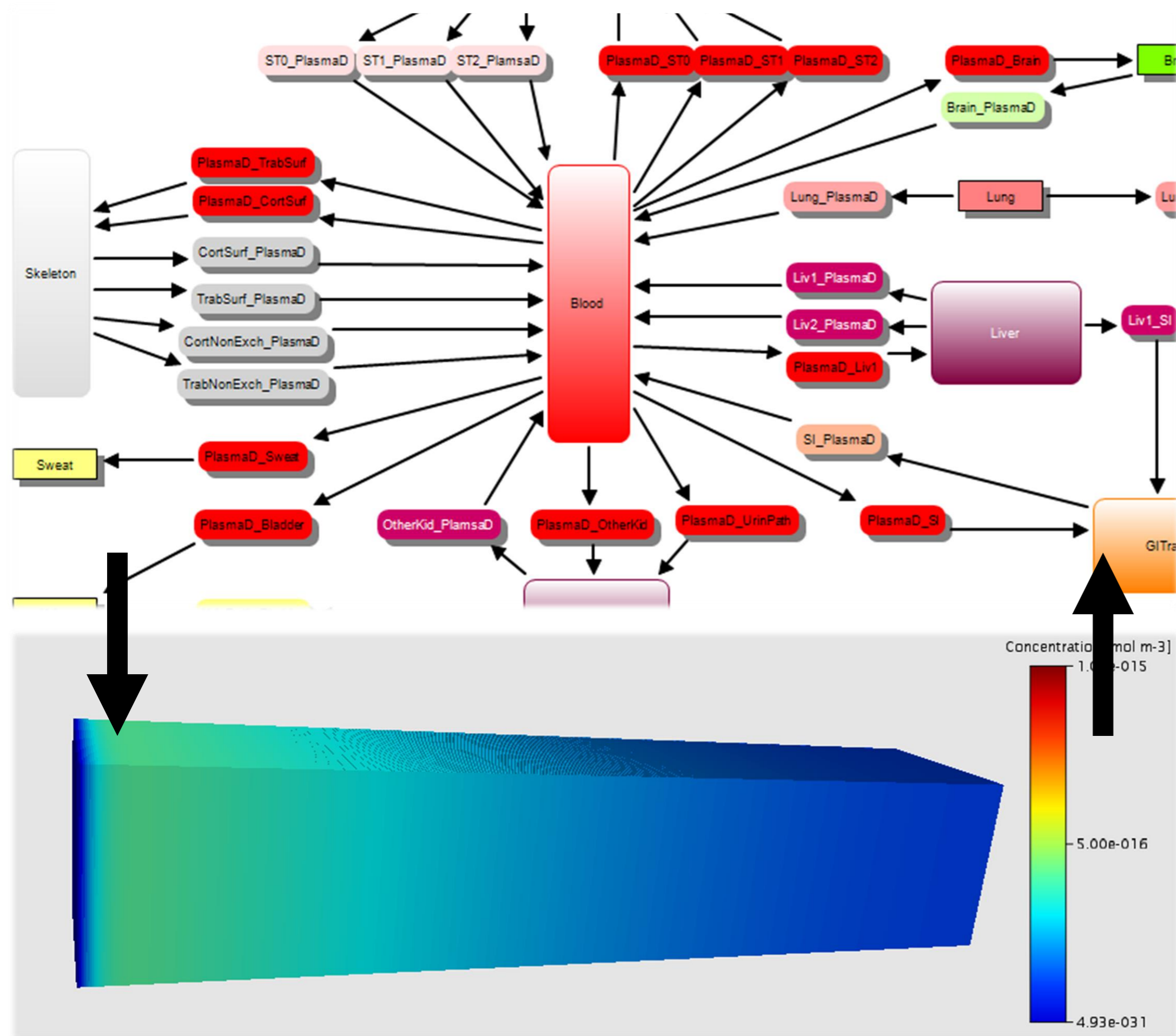
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Quintessa is a mathematical and software consultancy specialising in geosciences and radioactive waste management. Placements offer a mixture of physics and maths with a strong emphasis on software and scientific programming.



## Placements at Quintessa

- Based in Warrington or Henley-on-Thames.
- Very competitive salary.
- Flexible working hours.
- 25 days of annual leave.
- Small, employee-owned company.

## Radioactive Waste Management

- Hazardous for thousands of years, so must be stored in underground repositories.
- Leaching, barrier degradation, geological stability must be considered when assessing impact to environment, wildlife, and people.

## PFLOTRAN Fluid Dynamics

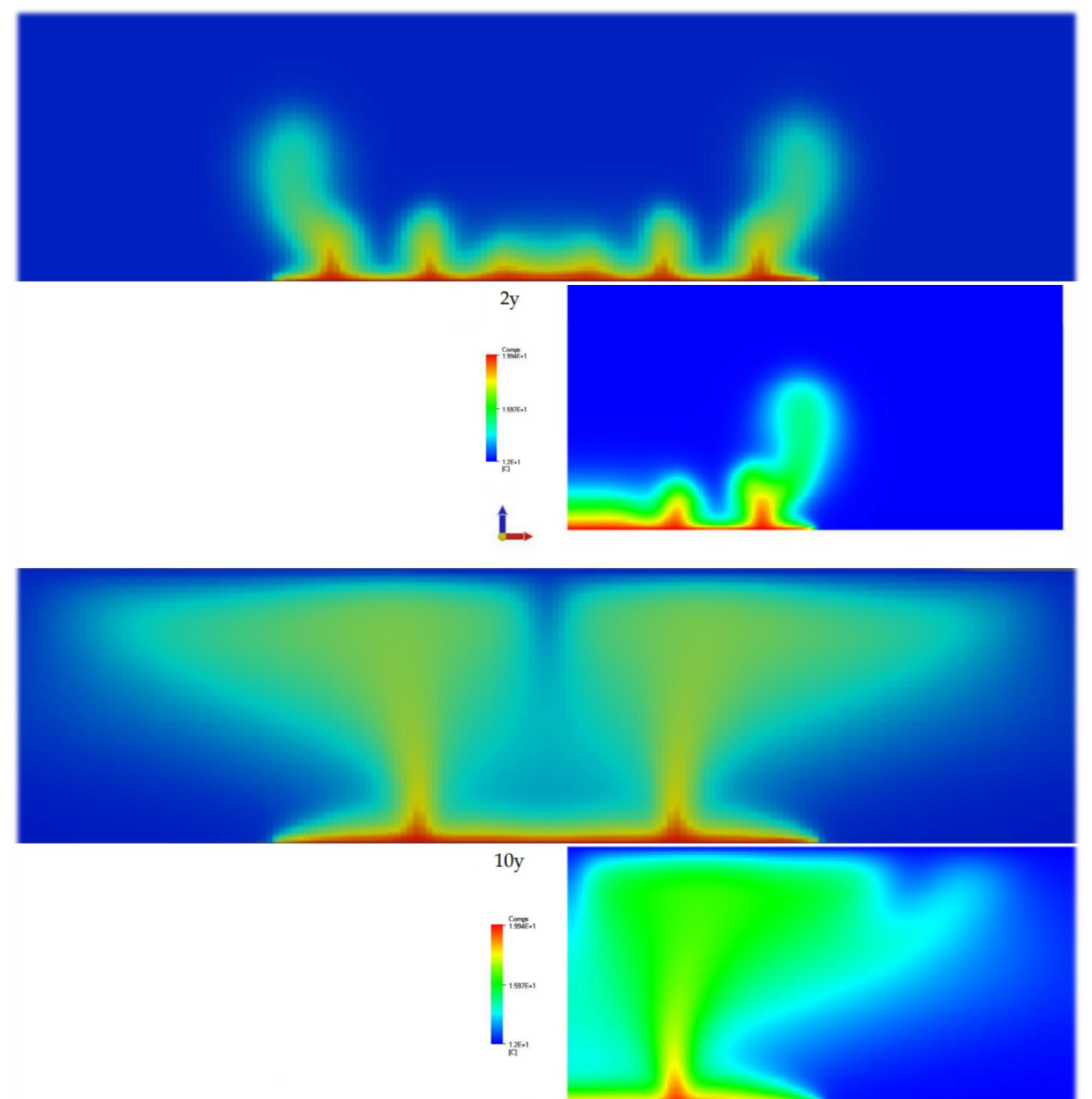
- Investigation of thermal/saline density-driven flow.
- Implementation of chaotic flows for comparison with existing codes.
- Creation of a suite of example simulations, aiming to provide new users with enough knowledge to use PFLOTRAN.

## Machine Learning

- Used to improve upon existing algorithmic method for ranking sports teams.
- Performed using Python scikit-learn.
- 10% improvement in accuracy.

## Google Earth Integration

- Export of spatial data from existing modelling software into Google-Earth-readable format.
- Shows system evolution in context.



Other work includes...

- ...software coupling.
- ...compartmental modelling.
- ...winning competitions.