* Gaussian process regressor using sklearn, with a constant and a Gaussian kernel
* Grid search to find the hyperparameter giving the largest log marginal likelihood, that is, the constant kernel value, the Gaussian kernel length, and the noise parameter alpha. Four rounds of grid search to refine the hyperparameters
* Randomly optimized predictions based on the weighted cost function. For every test sample do:
  1. Use the mean and std predicted by the Gaussian process to generate samples. Convert negative samples to 0, since concentration must be positive.
  2. Create prediction candidates equally spaced within 2 std of the mean, using the predicted mean and std. With a separation between candidates of 0.05\*std. So in total approx. 80 candidates.
  3. For each prediction candidate, evaluate the cost function using the empirical distribution of samples created in point 1.
  4. Pick the prediction candidate giving the best cost function value.