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Public MRI dataset + challenge

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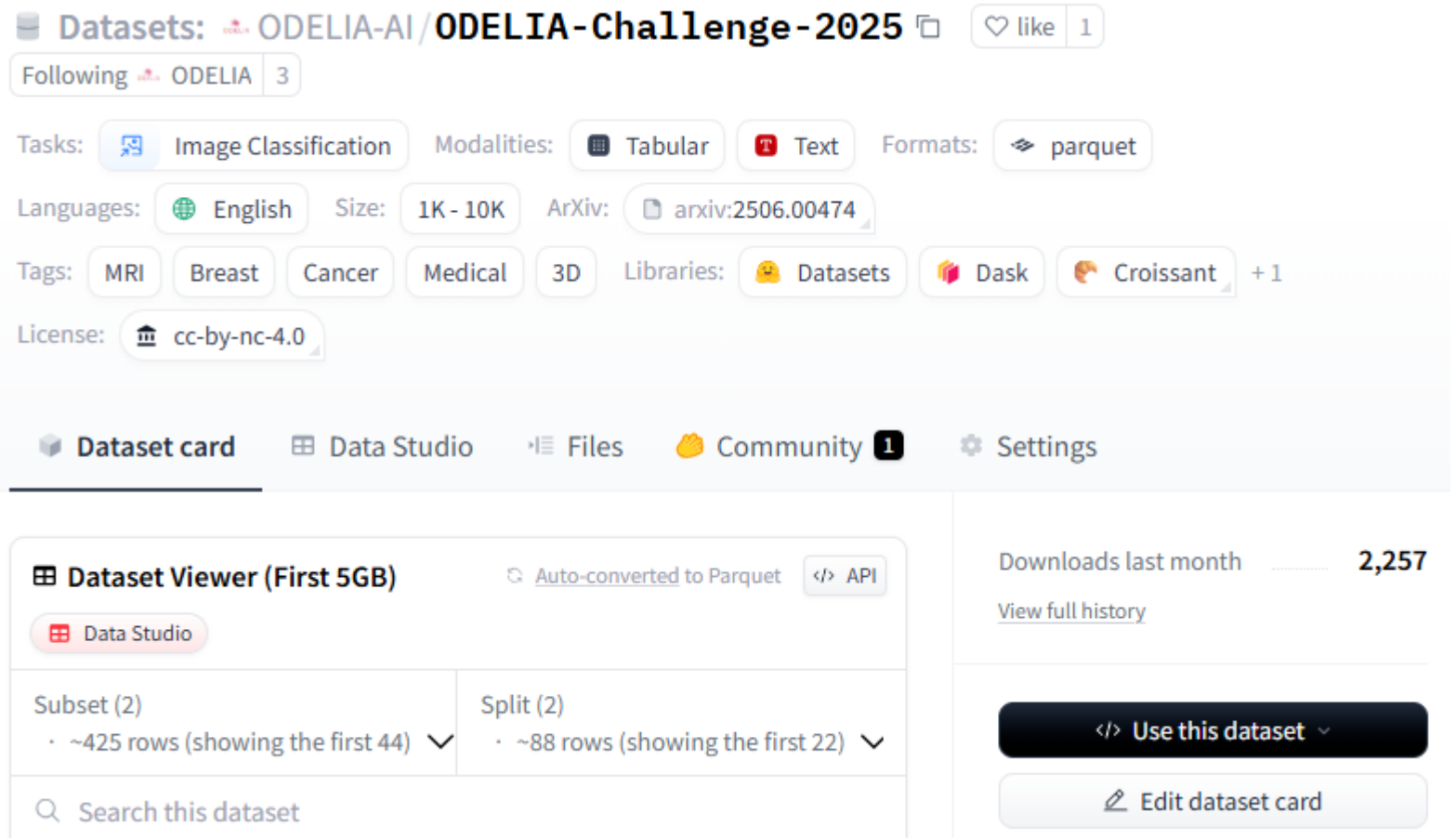
Hugging Face

Public dataset

- 511 studies publicly available
  - Fulfils deliverable 2.3
- Hosted on HuggingFace
- >5000 downloads



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Challenge complete!

- We closed submissions on 31 July
- Final standings were announced 15 August
- Workshop will take place 23 September
- 95 participants joined from 24 countries
- However, only 7 teams submitted algorithms to the final evaluation (down from 11 at pre-evaluation)

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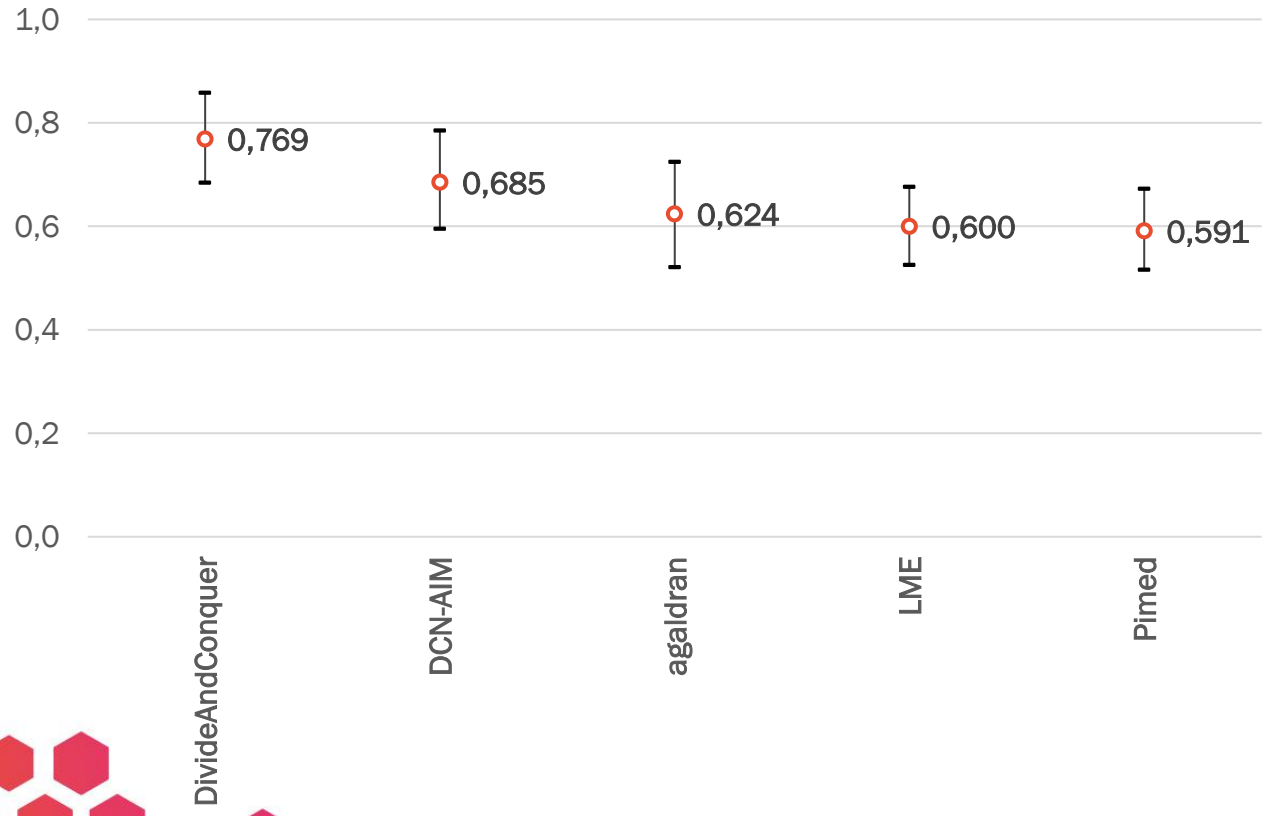
Results



- ‘Score’ plotted with 95% confidence intervals
- The score was the mean of the AUC, sensitivity (at 90% specificity), and specificity (at 90% sensitivity)
- Team DivideAndConquer won with a score of 0.769

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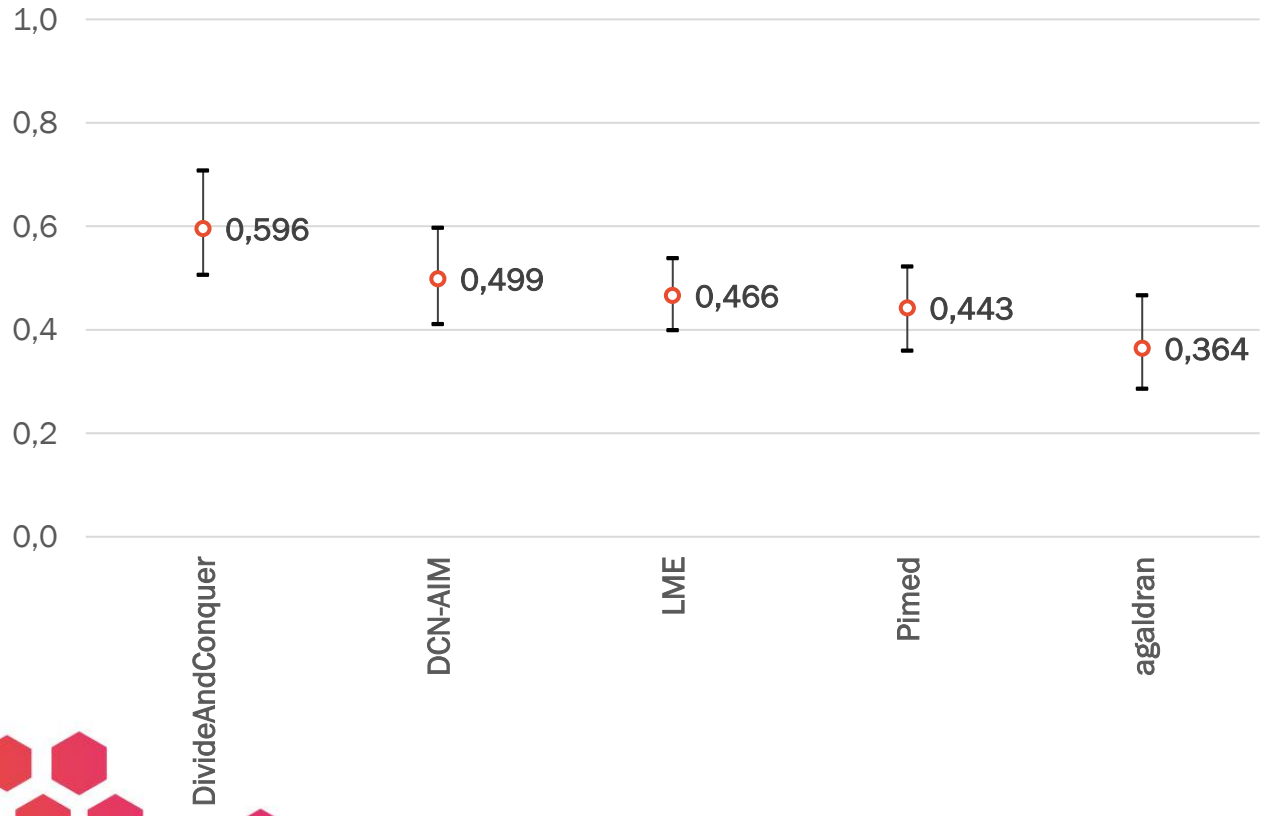
Results (holdout)



- ‘Score’ plotted with 95% confidence intervals
- Evaluated on a holdout set from RSH to test generalizability
- 3rd team dropped to 5th, otherwise order unchanged

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Results table

Team	Score [95%CI]	AUC [95%CI]	Sensitivity [95%CI]	Specificity [95%CI]
DivideAndConquer	0.769 [0.685-0.859]	0.897 [0.863-0.928]	0.740 [0.647-0.829]	0.669 [0.525-0.837]
BCN-AIM	0.685 [0.596-0.786]	0.861 [0.822-0.897]	0.621 [0.527-0.733]	0.575 [0.415-0.744]
agaldran	0.624 [0.522-0.725]	0.830 [0.789-0.871]	0.579 [0.442-0.717]	0.464 [0.302-0.614]
LME	0.600 [0.526-0.677]	0.814 [0.774-0.852]	0.487 [0.372-0.593]	0.499 [0.401-0.609]
Pimed	0.591 [0.517-0.673]	0.817 [0.772-0.859]	0.593 [0.484-0.717]	0.364 [0.269-0.467]

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Results table (holdout)

Team	Score [95%CI]	AUC [95%CI]	Sensitivity [95%CI]	Specificity [95%CI]
DivideAndConquer	0.596 [0.507-0.708]	0.814 [0.761-0.863]	0.622 [0.520-0.730]	0.35 [0.218-0.565]
BCN-AIM	0.499 [0.411-0.598]	0.75 [0.697-0.802]	0.354 [0.240-0.485]	0.392 [0.275-0.530]
agaldran	0.364 [0.287-0.467]	0.646 [0.582-0.709]	0.306 [0.185-0.475]	0.141 [0.070-0.243]
LME	0.466 [0.4-0.539]	0.727 [0.673-0.778]	0.307 [0.215-0.425]	0.364 [0.267-0.468]
Pimed	0.443 [0.36-0.523]	0.715 [0.656-0.773]	0.345 [0.215-0.460]	0.268 [0.180-0.358]

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Results table (difference)

Team	Score	AUC	Sensitivity	Specificity
DivideAndConquer	- 0.173	- 0.083	- 0.118	- 0.319
BCN-AIM	- 0.186	- 0.111	- 0.267	- 0.183
agaldran	- 0.260	- 0.184	- 0.273	- 0.323
LME	- 0.134	- 0.087	- 0.180	- 0.135
Pimed	- 0.148	- 0.102	- 0.248	- 0.096

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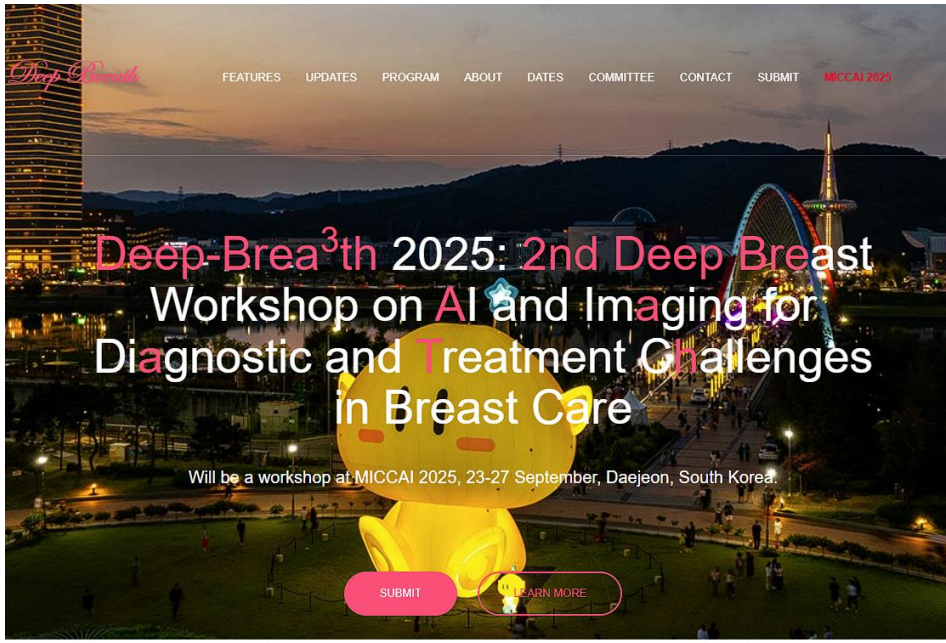
Deep-Brea^{3}th at MICCAI 2025

- These top 5 teams have been invited to present their work at the Deep-Brea^{3}th workshop.
- 23rd September – Daejeon, South Korea
- Through their participant in the trial, these teams have agreed to make their code available to the ODELIA consortium.



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Expanding the public dataset

- Now that the challenge has concluded, the 229 studies held back for evaluation can be added to the public dataset
- We could also consider giving further metadata than that currently provided (left/right; normal/benign/malignant)
- Expands the ODELIA public dataset to 740 studies

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