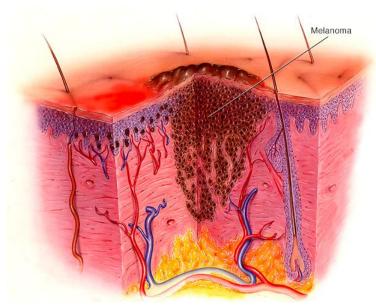
Background



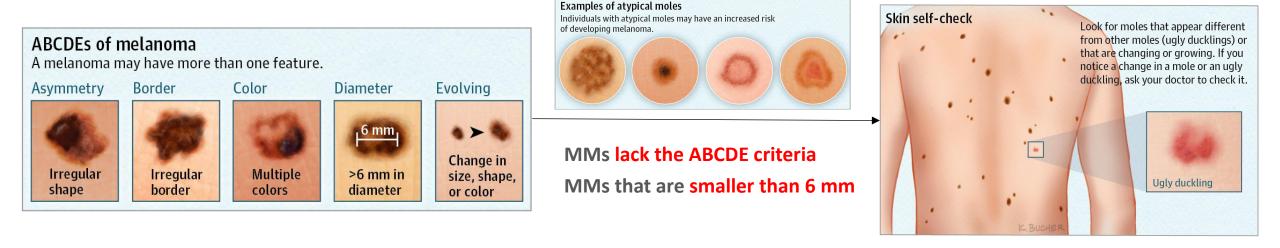


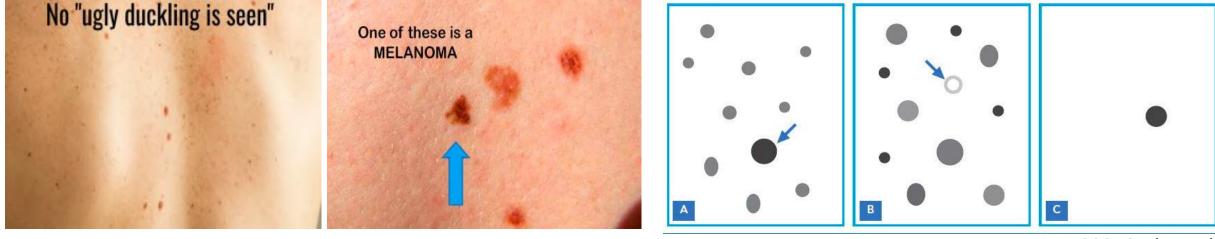
- Early-stage melanoma is almost 100% accruable
- Early diagnosis is crucial for the treatment
- Visual Dermoscopic examination >> naked eye examination
- Quantitative criteria: "ABCD" rule



Melanoma, developed from the pigmentproducing cells, is a kind of **deadliest** skin cancer

Ugly duckling sign of melanoma





1998, Grob, et al

nevi in the same individual tend to resemble one another, and that MM often deviates from this nevus pattern.

ISIC melanoma recognition challenge --- considering "contextual" images within the same patient to determine which images represent a melanoma.

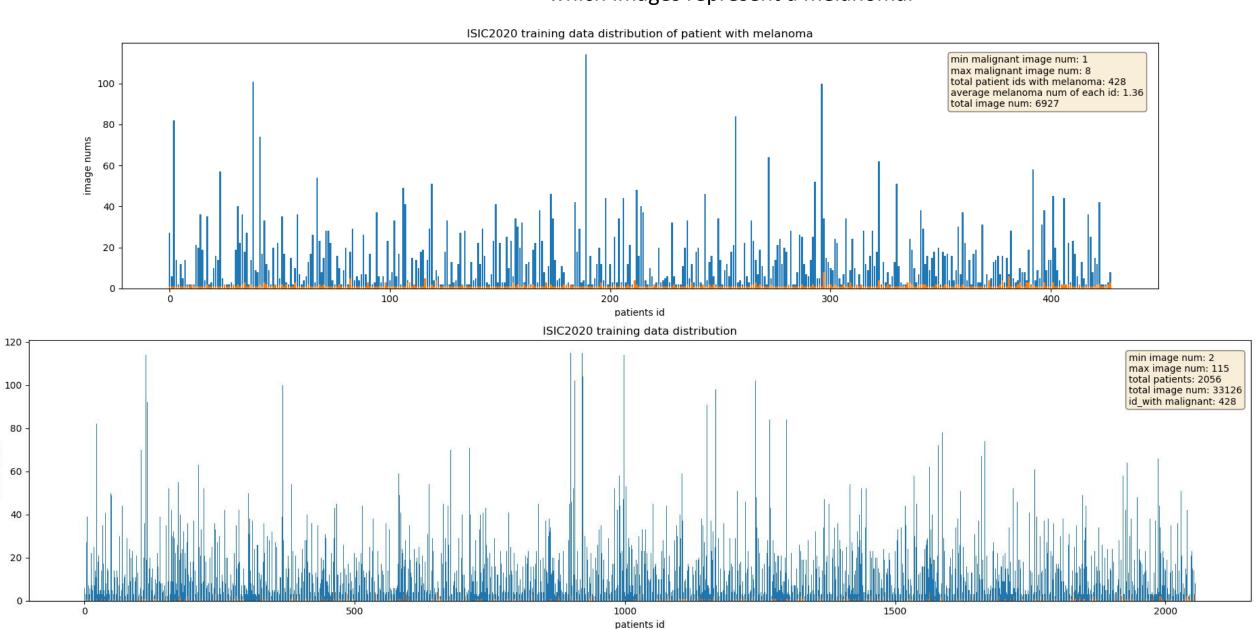
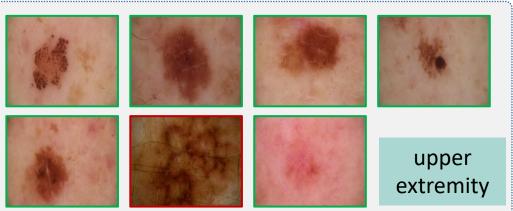


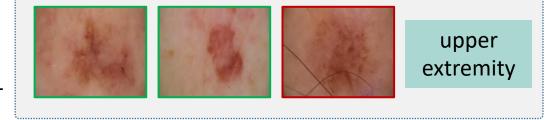
image nums

IP_0038545 Total: 28 Malignant: 1



IP_0059113 Total: 7

Malignant: 1

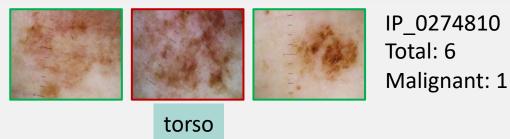


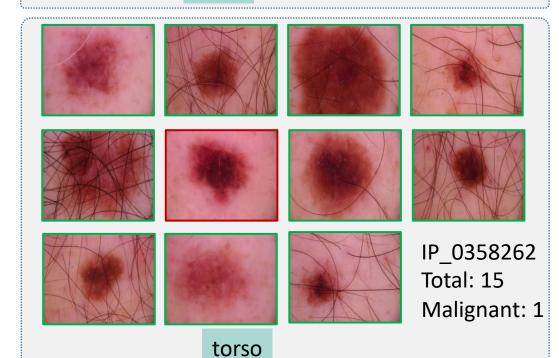
IP_0135517 Total: 15

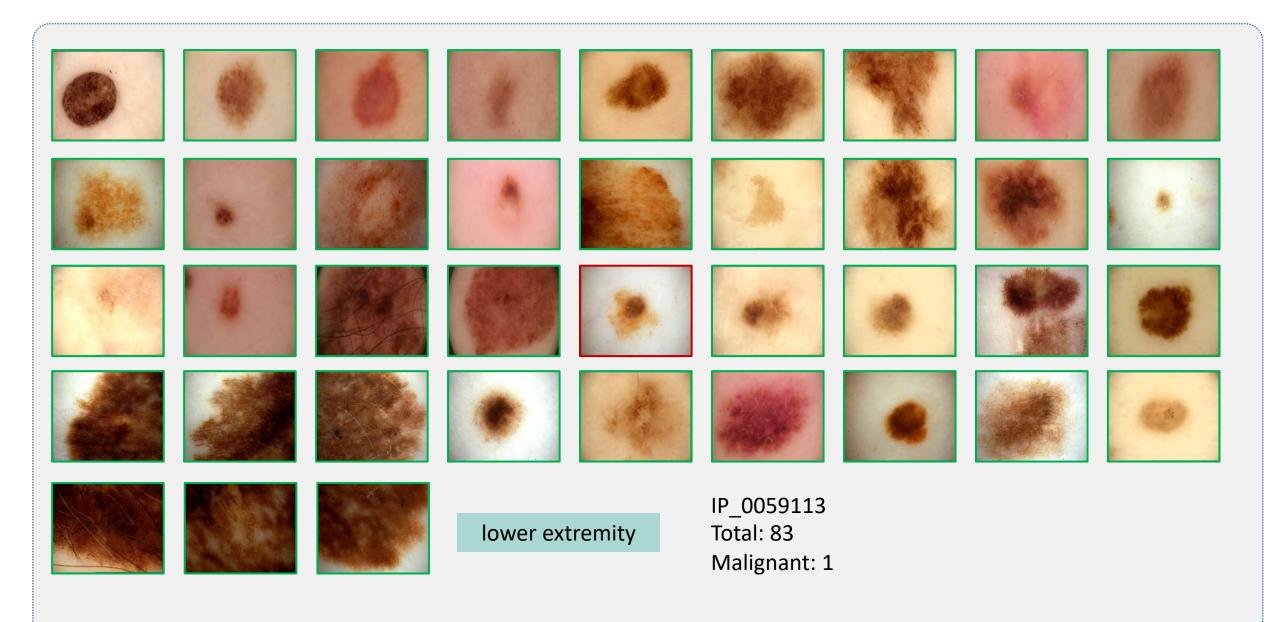
Malignant: 1











The 'Ugly Duckling' Sign: Identification of the Common Characteristics of Nevi in an Individual as a Basis for Melanoma Screening , *Archives of dermatology*, 1998

Ugly Duckling Sign as a Major Factor of Efficiency in Melanoma Detection, JAMA Dermatol, 2017

The role of the ugly duckling sign in patient education, Journal of the American Academy of Dermatology, 2017