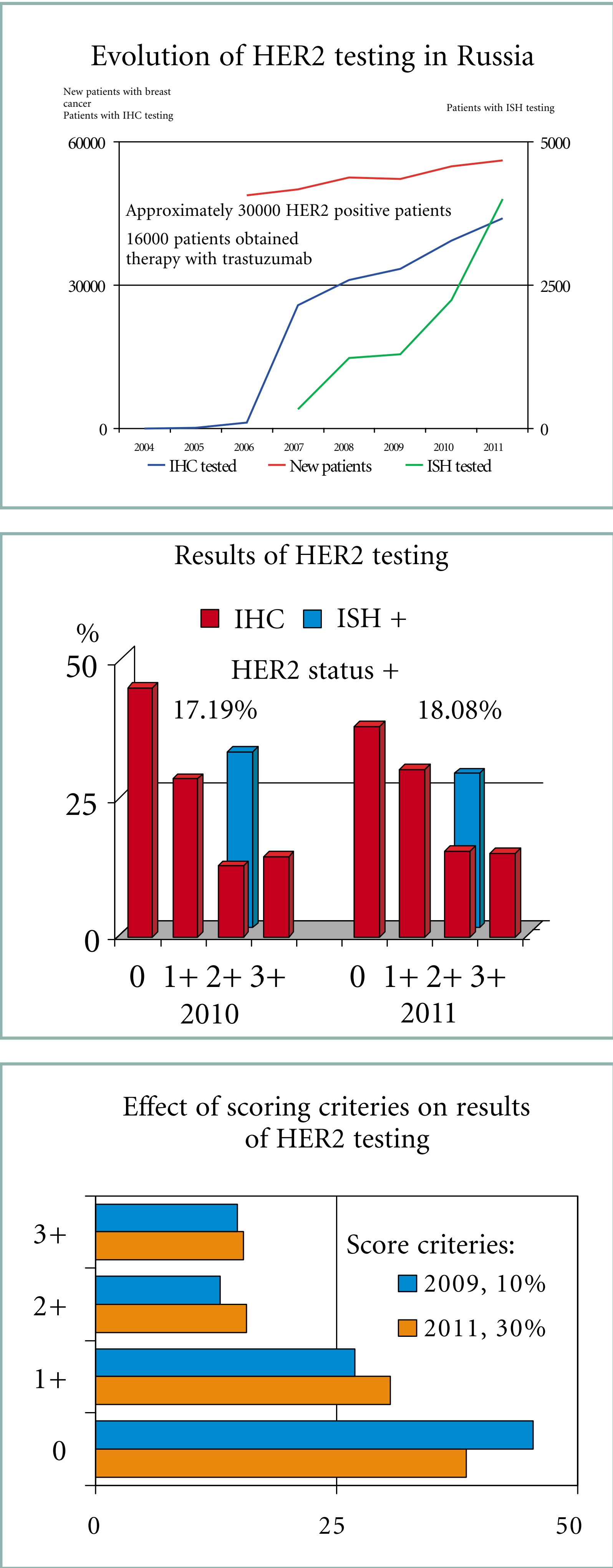
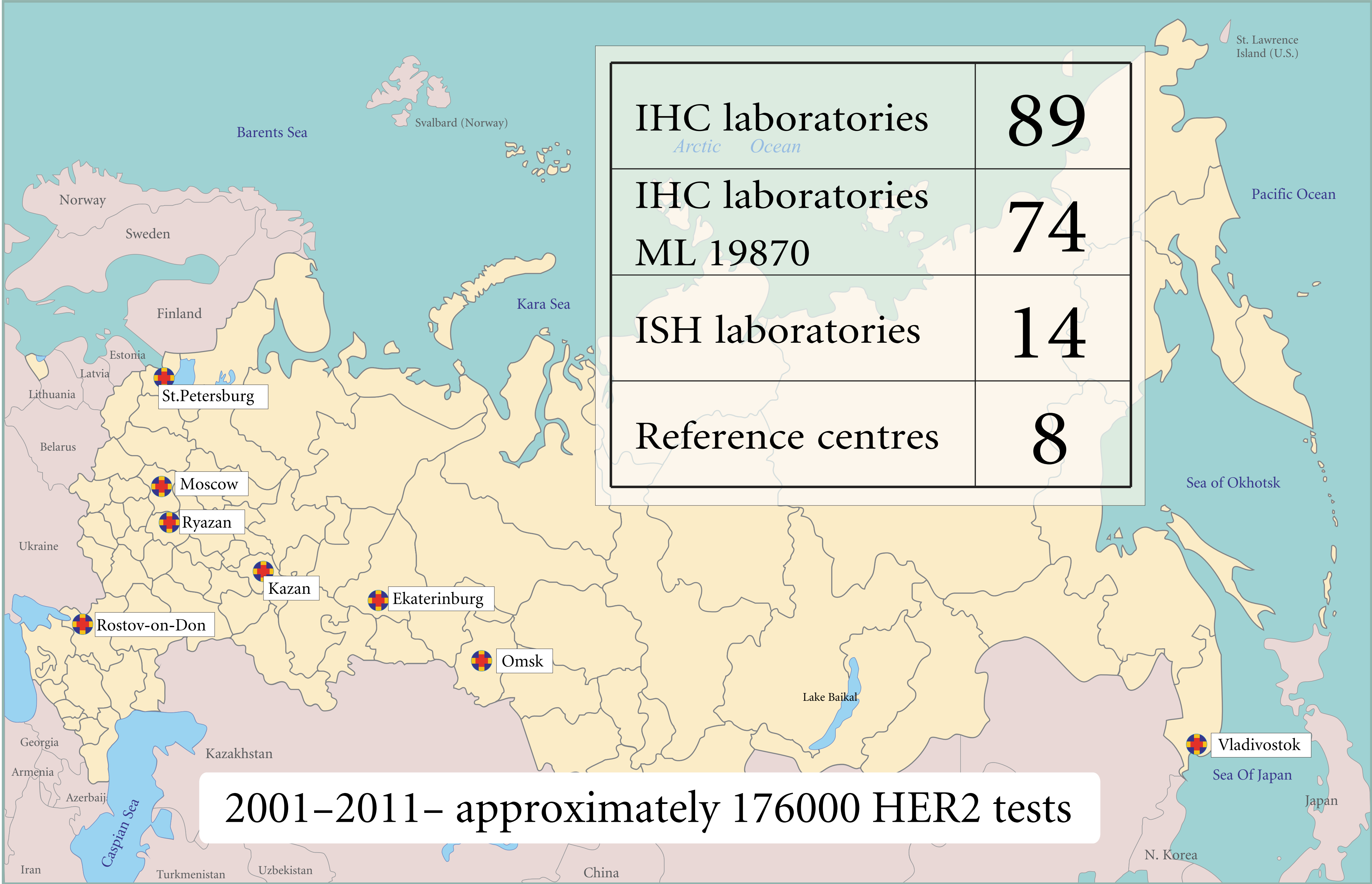
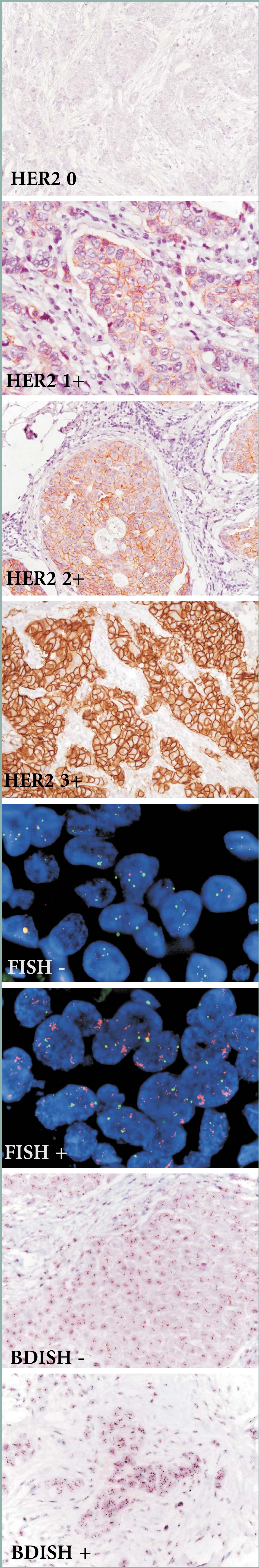


HER2 TESTING IN RUSSIA: THE RESULTS OF THE 10 YEARS OF EXPERIENCE ASCO/CAP RECOMMENDED SCORE SYSTEM

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Background: We analyzed using of 10%- and 30%-cells score system criteria for HER2 testing in breast cancer (2001-2011).

Materials and Methods: In 2001-2011 176028 new invasive breast cancer cases were investigated in Russia. IHC testing was made using HER2 antibody (A0485, Dako and Confirm HER2 Ventana) in 79 regional laboratories, samples were retested in 8 reference centers with HerceptTest (Dako). Equivocal results IHC (2+) were retested using ISH: FISH (Dako), BDISH (Ventana). Scoring criteria was 10% of tumor cells (till 2009) and 30% of tumor cells according to the ASCO/CAP recommendations (2010).

Results: 39384 samples were tested in 2009. Score 0 was found in 45.43% cases, 1+ in 28.86%, 2+ in 12.97%, 3+ in 14.73%. The amplification was revealed in 32.12% of 2+ cases, 1 . % tumors were 3+/FISH+. 43485 cases were tested in 2011: score 0 – 38.42%, 1+ 30.61%, 2+ 15.65%, 3+ 15.32%. The amplification was seen in 28.17% 2+ cases and 18.8% tumors became 3+/FISH+. There was no significant distinction using 10% and 30% cells score system for 3+ tumors, whereas for groups 1+ and 2+ it was.

Conclusion: ASCO/CAP scoring criteria developed in 2007 have no effect on HER2-positive tumors detection but increases number of cases with equivocal result, what require retesting with ISH.