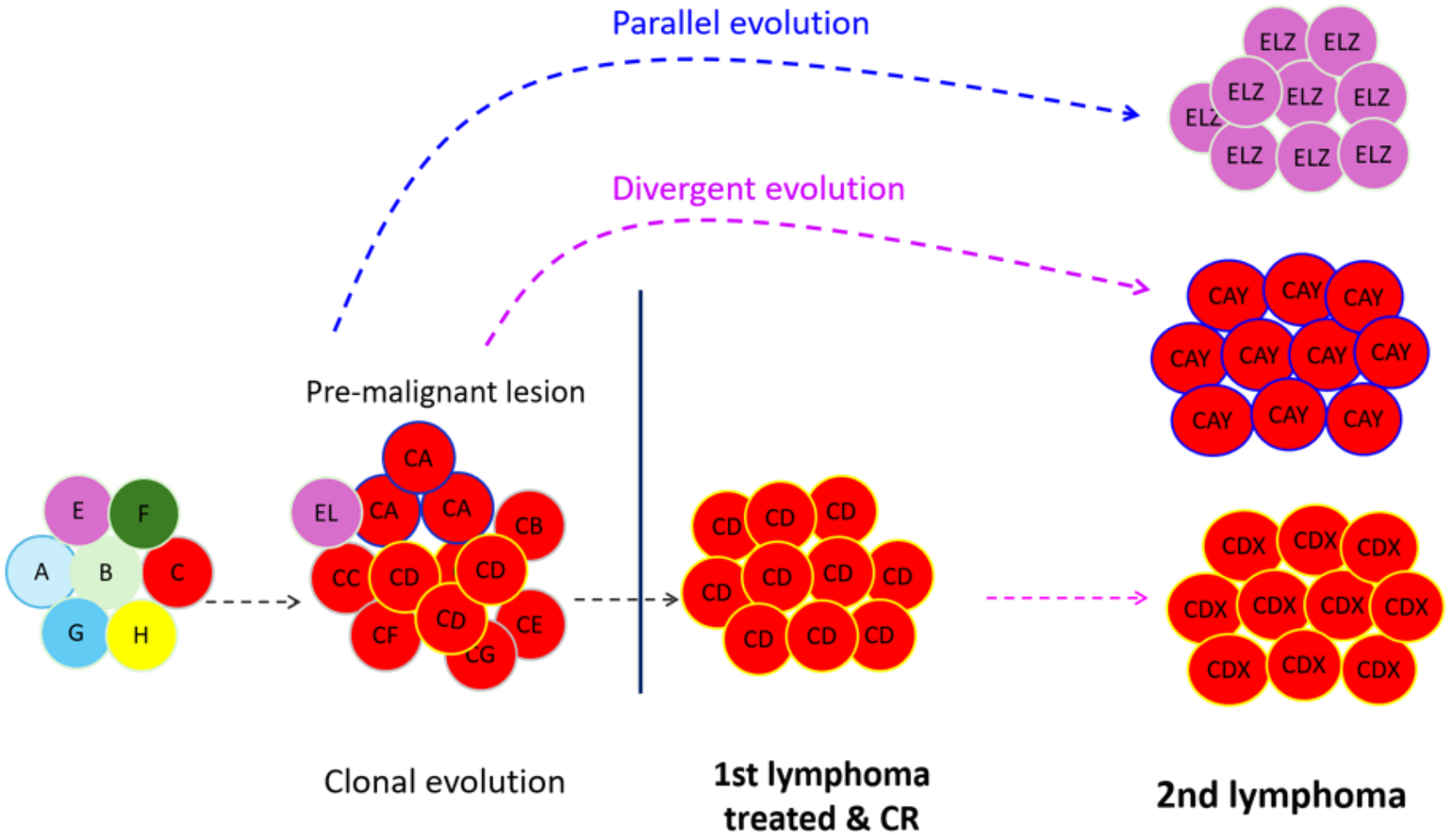
# Salivary gland lymphoma: lymphoma relapse and clonal evolution

# Multistep development of EMZL




immunological drive

Genetic drive

# Clonal evolution of thyroid lymphoma



Chronic lymphocytic thyroiditis
(Hashimoto's thyroiditis)

Clonal autoreactive B-cells

Isolated mutations:
TET2
CD274
TNFRSF14 mutation/deletion
TNFAIP3

(0.37%)

Concurrent mutations
CD274
TNFRSF14
TNFAIP3
FAS
....

Recurrent thyroid lymphoma (6-9%)

Primary thyroid EMZL (55%)
DLBCL (38%)
FL (3%)

Nicola et al Nature 2026; Tzioni et al J Path 2025

| | Lymphoma relapse | |
|---|---|---|
| Gastric lymphoma | ~3% | PMID: 16204012<br>PMID: 41776408<br>PMID: 21890816 |
| Thyroid lymphoma | 6-9% | PMID: 21371004<br>PMID: 29165612<br>PMID: 28443243 |
| Salivary gland lymphoma | ~30% | PMID: 21075560<br>PMID: 26268740 |

- Gastric Lymphoma: H pylori eradication, eliminate causative agent

- Thyroid and salivary gland lymphoma: therapy targeting tumour cells not clonally related premalignant autoreactive B-cells.

# Study design

- Case selection
  - Primary salivary gland B-cell lymphoma (EMZL, DLBCL, FL)
  - Diagnostic biopsy: mutation profiling & validation
  - Paired reactive, diagnostic and relapsed lymphoma biopsies: clonal evolution
  - FFPE tissues: 10-15 unstained slides
- NGS
  - IG gene: clonal relationship, VH usage & stereotypic BCR
  - mutation profiling: similarity among EMZL & DLBCL, clonal evolution

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