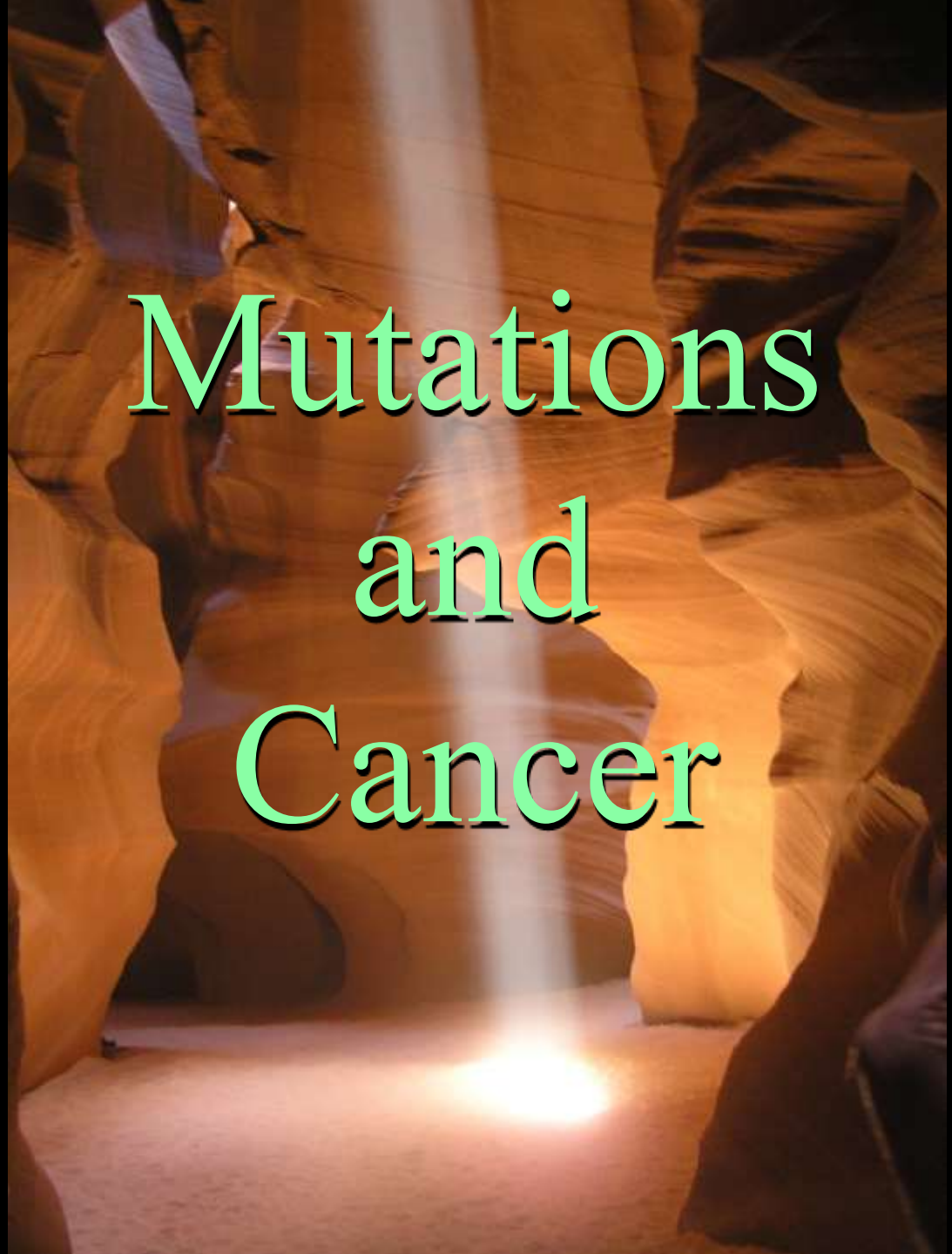
Mutations
and
Cancer

Mutations and Cancer

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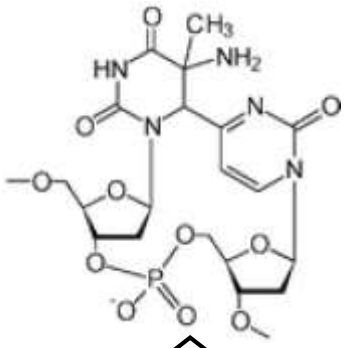
Mutations and Cancer

-T-C-
-A-G-

Mutations and Cancer

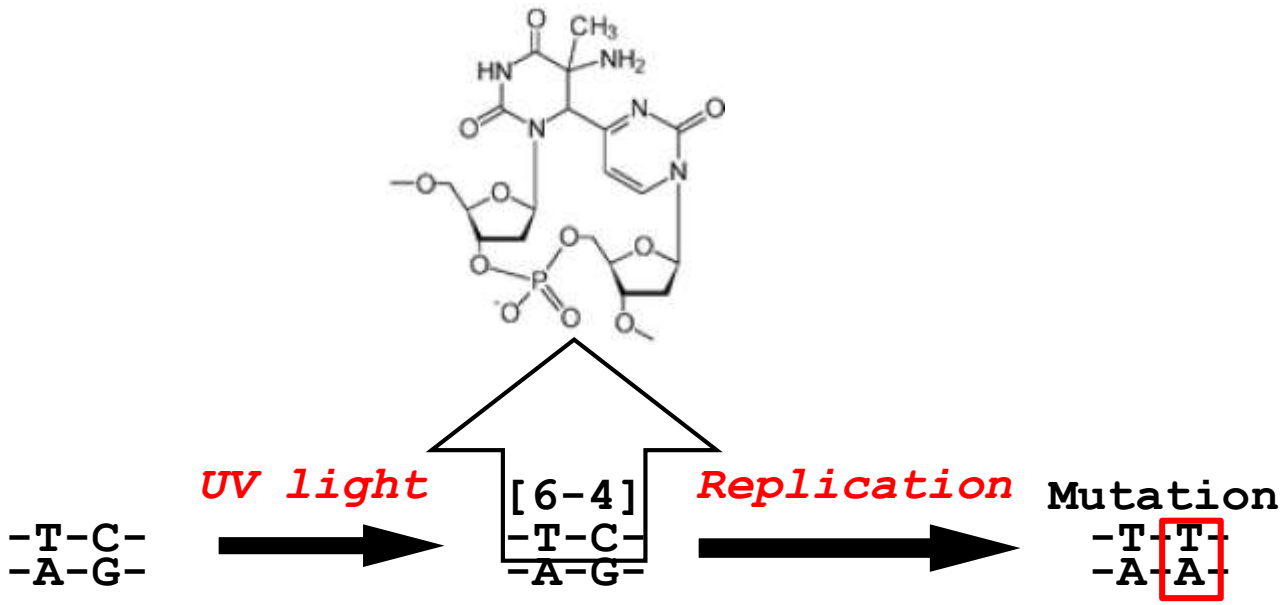


UV light

-T-C-
-A-G-

[6-4]
-T-C-
-A-G-

Mutations and Cancer



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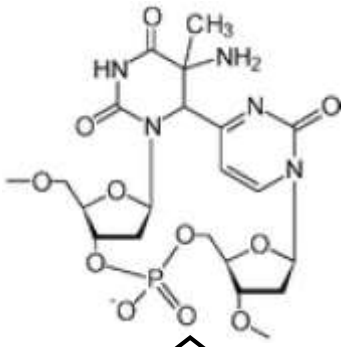


-T-C-
-A-G-

UV light

[6-4]
-T-C-
-A-G-

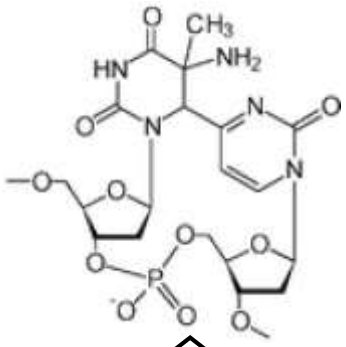
Replication

Mutation
-T-T-
-A-A-

DNA Repair

-T-C-
-A-G-

Mutations and Cancer



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Mutations and Cancer

Cancer causing agents

=

Mutation causing agents

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Mutations and Cancer

Dominant UV light mutation

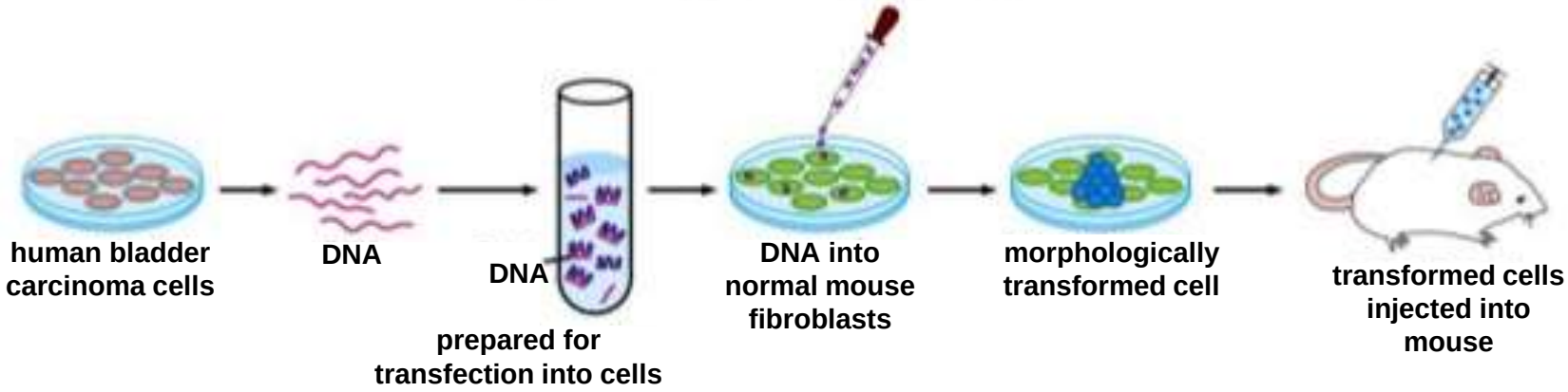
TC->TT

Dominant mutation in skin cancer

TC->TT

Mutations and Cancer

Transfection of DNA provides a strategy for detecting non-viral oncogenes



Tumor caused by RAS gene

with G->T mutation

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Mutations and Cancer

7,042 human tumors analyzed

4,938,362 mutations analyzed

ONLY

21 mutational "Signature Patterns"

UV light = Signature 7

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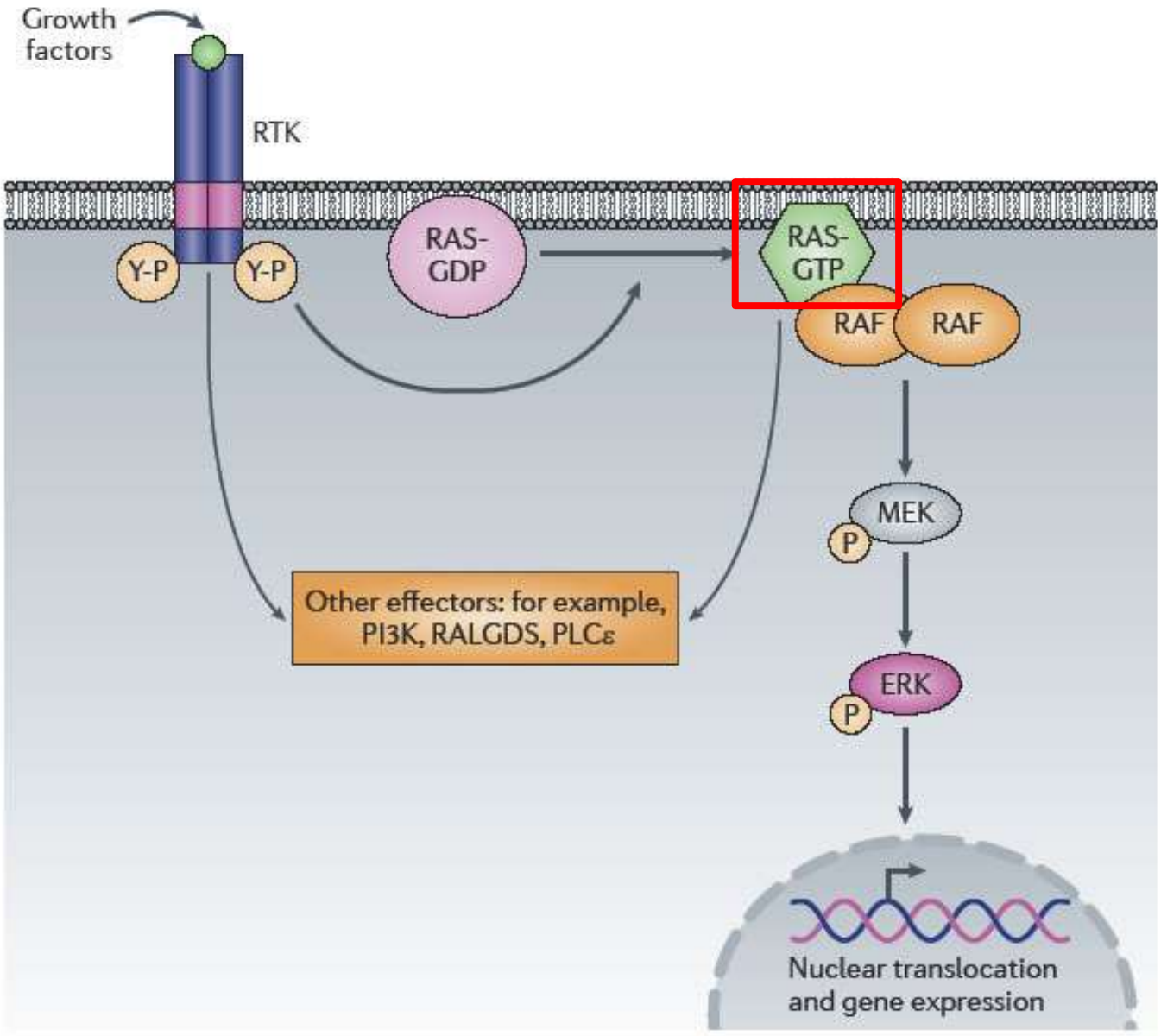
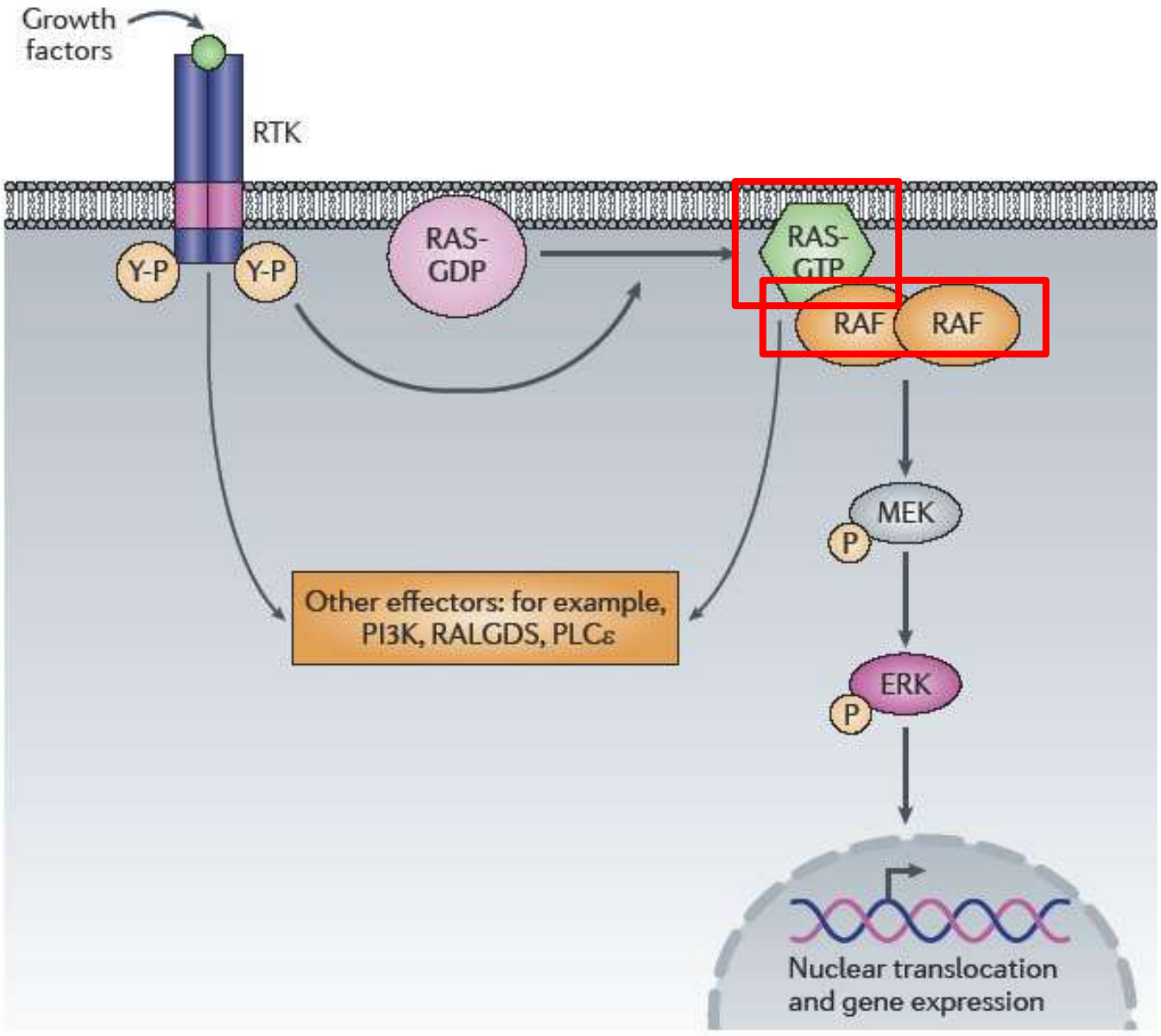


Mutations and Cancer



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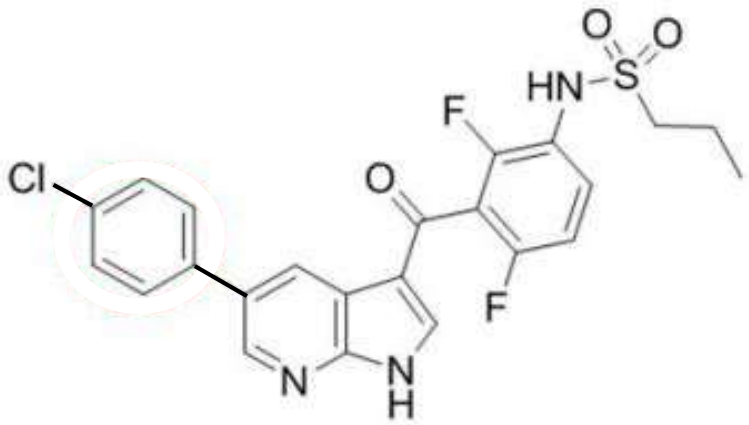
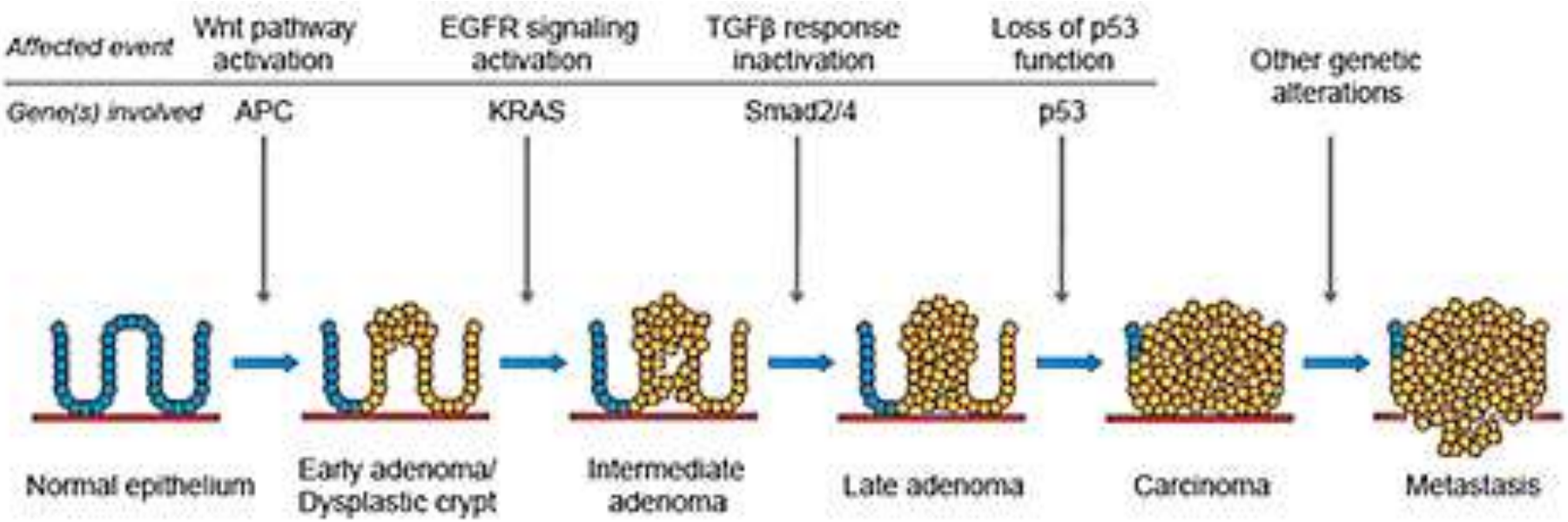


PLX 4032
Vemurafenib

Mutations and Cancer

Colon Cancer Tumor Progression



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