

Germline genetics, disease, and exposure to medication influence longitudinal dynamics of clonal hematopoiesis

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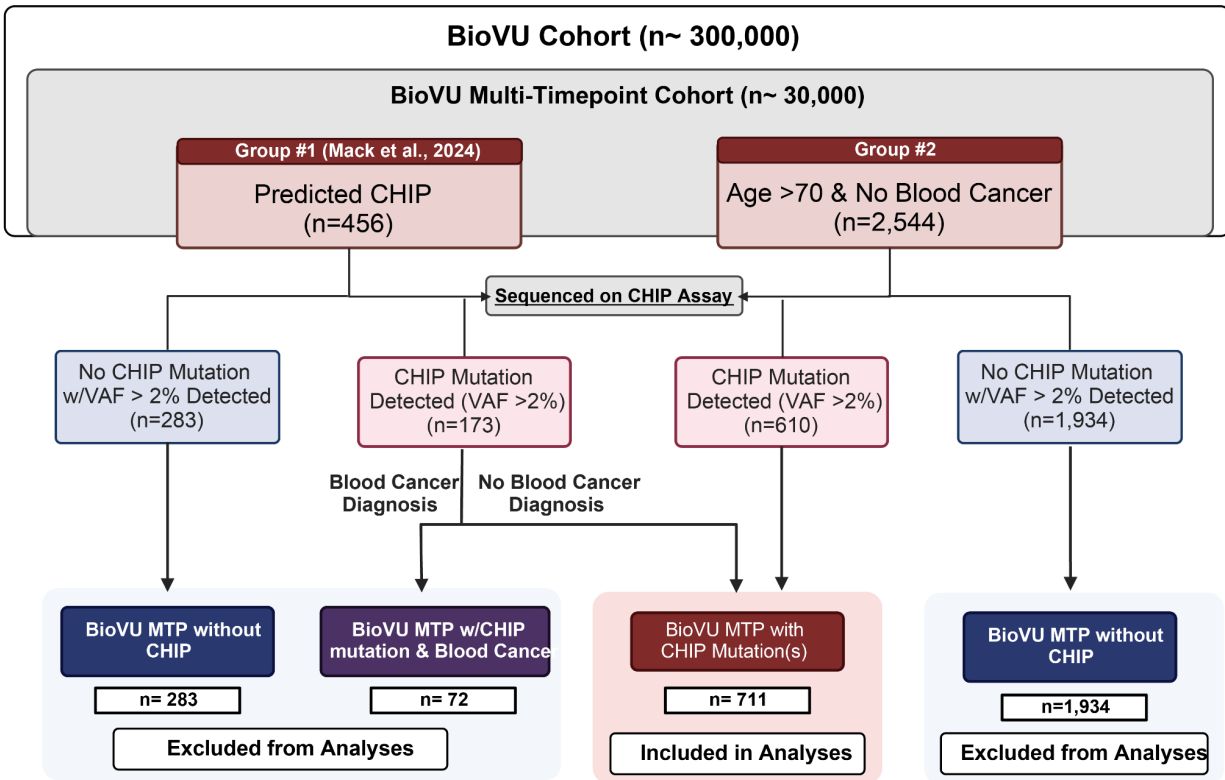
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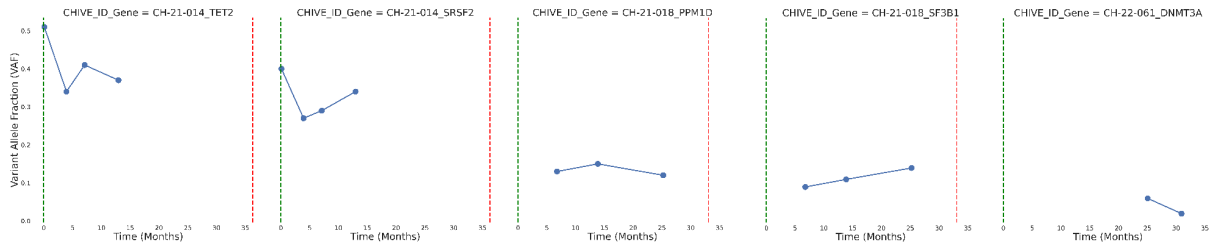
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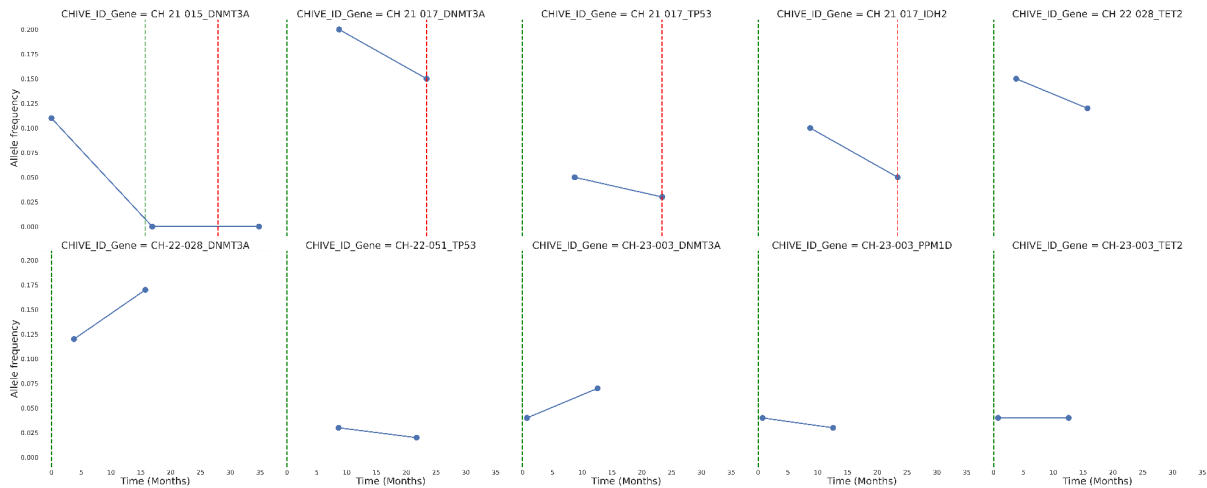


Supplementary Figure 1: Flowchart representing patient selection criteria for inclusion in the study. CHIP = Clonal hematopoiesis of indeterminate potential. MTP = multiple time point. VAF = variant allele fraction. Mack et al, 2024 is reference 6 in the manuscript.

A - Colchicine



B - Methylprednisolone



Supplementary Figure 2: (A) Clonal trajectories of 6 clones in 4 individuals with multiple sequencing blood draws while taking colchicine plotting variant allele frequency (VAF) over time in months from the Clonal Hematopoiesis and Inflammation in the Vasculature (CHIVE) cohort. Green dotted line represents the starting of colchicine. Red dotted line represents the discontinuation of colchicine. Patient ID and CHIP driver gene is shown in each subfigure title. (B) Clonal trajectories of 10 clones in 5 individuals with multiple sequencing blood draws while taking oral methylprednisolone plotting variant allele frequency (VAF) over time in months from the Clonal Hematopoiesis and Inflammation in the Vasculature (CHIVE) cohort. Green dotted line represents the starting of methylprednisolone. Red dotted line represents the discontinuation of methylprednisolone. Patient ID and CHIP driver gene is shown in each subfigure title.

Supplementary Table 1: Targeted Capture regions for identifying a CHIP mutation. Genomic coordinates are provided per the hg38 reference genome.

Chromosome	Start	Stop	Gene
chr1	1806469	1806543	<i>GNB1</i>
chr1	1815750	1815867	<i>GNB1</i>
chr1	43349257	43349363	<i>MPL</i>
chr1	114713799	114713978	<i>NRAS</i>
chr1	114716047	114716162	<i>NRAS</i>
chr2	25749689	25750420	<i>ASXL2</i>
chr2	25753532	25753640	<i>ASXL2</i>
chr2	25246614	25246781	<i>DNMT3A</i>
chr2	25313907	25313989	<i>DNMT3A</i>
chr2	25234273	25234425	<i>DNMT3A</i>
chr2	25235701	25235830	<i>DNMT3A</i>
chr2	25236930	25237010	<i>DNMT3A</i>
chr2	25239124	25239220	<i>DNMT3A</i>
chr2	25239484	25239518	<i>DNMT3A</i>
chr2	25240296	25240455	<i>DNMT3A</i>

chr2	25240634	25240735	<i>DNMT3A</i>
chr2	25241556	25241712	<i>DNMT3A</i>
chr2	25243892	25243987	<i>DNMT3A</i>
chr2	25244149	25244343	<i>DNMT3A</i>
chr2	25244534	25244657	<i>DNMT3A</i>
chr2	25245247	25245337	<i>DNMT3A</i>
chr2	25246014	25246069	<i>DNMT3A</i>
chr2	25246154	25246314	<i>DNMT3A</i>
chr2	25247045	25247163	<i>DNMT3A</i>
chr2	25247585	25247754	<i>DNMT3A</i>
chr2	25248031	25248257	<i>DNMT3A</i>
chr2	25249651	25249729	<i>DNMT3A</i>
chr2	25251906	25252099	<i>DNMT3A</i>
chr2	25252188	25252202	<i>DNMT3A</i>
chr2	25274935	25275092	<i>DNMT3A</i>
chr2	25275494	25275548	<i>DNMT3A</i>
chr2	25282382	25282716	<i>DNMT3A</i>
chr2	25300133	25300248	<i>DNMT3A</i>

chr2	208243524	208243601	<i>IDH1</i>
chr2	208248358	208248421	<i>IDH1</i>
chr2	197400709	197400941	<i>SF3B1</i>
chr2	197401979	197402135	<i>SF3B1</i>
chr2	197405269	197405477	<i>SF3B1</i>
chr2	197416735	197416916	<i>SF3B1</i>
chr2	197400049	197400171	<i>SF3B1</i>
chr2	197400246	197400439	<i>SF3B1</i>
chr2	197401394	197401530	<i>SF3B1</i>
chr2	197401736	197401893	<i>SF3B1</i>
chr2	197402550	197402831	<i>SF3B1</i>
chr2	197402943	197403040	<i>SF3B1</i>
chr2	197403579	197403769	<i>SF3B1</i>
chr2	197405070	197405182	<i>SF3B1</i>
chr2	197407992	197408124	<i>SF3B1</i>
chr2	197408363	197408586	<i>SF3B1</i>
chr2	197409764	197410012	<i>SF3B1</i>
chr4	54727217	54727324	<i>KIT</i>

chr4	54733069	54733192	<i>KIT</i>
chr4	54727415	54727542	<i>KIT</i>
chr4	54727822	54727927	<i>KIT</i>
chr4	54728010	54728121	<i>KIT</i>
chr4	54729334	54729485	<i>KIT</i>
chr4	54731327	54731419	<i>KIT</i>
chr4	54731870	54731998	<i>KIT</i>
chr4	54736497	54736609	<i>KIT</i>
chr4	105233891	105237445	<i>TET2</i>
chr4	105243564	105243783	<i>TET2</i>
chr4	105269604	105269752	<i>TET2</i>
chr4	105275042	105276524	<i>TET2</i>
chr4	105241333	105241438	<i>TET2</i>
chr4	105242828	105242932	<i>TET2</i>
chr4	105259613	105259774	<i>TET2</i>
chr4	105261753	105261853	<i>TET2</i>
chr4	105272558	105272923	<i>TET2</i>
chr9	5076681	5076701	<i>JAK2</i>

chr9	5073683	5073800	<i>JAK2</i>
chr11	119278160	119278302	<i>CBL</i>
chr11	119278504	119278718	<i>CBL</i>
chr12	22671265	22671359	<i>ETNK1</i>
chr12	25225612	25225772	<i>KRAS</i>
chr12	25227220	25227424	<i>KRAS</i>
chr12	25245270	25245384	<i>KRAS</i>
chr15	90088655	90088758	<i>IDH2</i>
chr17	60656593	60656846	<i>PPM1D</i>
chr17	60662989	60663557	<i>PPM1D</i>
chr17	7669603	7669695	<i>TP53</i>
chr17	7670603	7670720	<i>TP53</i>
chr17	7673213	7673271	<i>TP53</i>
chr17	7673301	7673344	<i>TP53</i>
chr17	7673529	7673613	<i>TP53</i>
chr17	7673695	7673842	<i>TP53</i>
chr17	7674175	7674295	<i>TP53</i>
chr17	7674814	7674976	<i>TP53</i>

chr17	7675047	7675243	<i>TP53</i>
chr17	7675988	7676277	<i>TP53</i>
chr17	7676376	7676408	<i>TP53</i>
chr17	7676515	7676627	<i>TP53</i>
chr18	44951903	44952002	<i>SETBP1</i>
chr20	32358770	32358837	<i>ASXL1</i>
chr20	32359741	32359796	<i>ASXL1</i>
chr20	32366378	32366472	<i>ASXL1</i>
chr20	32369006	32369128	<i>ASXL1</i>
chr20	32428122	32428253	<i>ASXL1</i>
chr20	32428319	32428427	<i>ASXL1</i>
chr20	32429332	32429436	<i>ASXL1</i>
chr20	32429895	32430058	<i>ASXL1</i>
chr20	32431315	32431489	<i>ASXL1</i>
chr20	32431577	32431684	<i>ASXL1</i>
chr20	32432874	32432990	<i>ASXL1</i>
chr20	32433278	32433922	<i>ASXL1</i>
chr20	32434426	32437343	<i>ASXL1</i>

chr20	58910677	58910834	<i>GNAS</i>
chr20	58909344	58909428	<i>GNAS</i>
chr20	58909515	58909584	<i>GNAS</i>
chr20	58909678	58909809	<i>GNAS</i>
chr20	58909945	58910086	<i>GNAS</i>
chr20	58910328	58910406	<i>GNAS</i>
chr21	43094649	43094793	<i>U2AF1</i>
chr21	43093096	43093254	<i>U2AF1</i>
chr21	43094461	43094568	<i>U2AF1</i>
chr21	43095432	43095541	<i>U2AF1</i>
chr21	43095688	43095748	<i>U2AF1</i>
chr21	43100447	43100524	<i>U2AF1</i>
chr21	43101274	43101437	<i>U2AF1</i>
chr21	43104309	43104407	<i>U2AF1</i>
chr21	43107445	43107499	<i>U2AF1</i>
chrX	155071527	155071650	<i>BRCC3</i>
chrX	155072326	155072343	<i>BRCC3</i>