

Gene Panels: Filtering and Expertises



Many heterogenic disorders can be caused by pathogenic mutations in tens or even hundreds of genes. Next-generation sequencing methods are offering a way to generate sequence data of all such genes or even the whole exome or genome.

Gene Talk's **Gene Panels** help you analyzing the sequence variants in certain regions of interest efficiently. You can list, for example, all genes related to a molecular pathway or genes associated with a certain phenotype in a gene panel and use it for filtering.



Gene panels are also used as a means to declare your expertise. You can state a level of expertise for a gene panel to be contacted by other users. And – vice versa – you can find experts for certain genes and contact them to discuss your variants or find other patients.

Name	Description	Number of genes	Followers	Author		Actions
GPI anchor synthesis deficiency (subclass of CDG)	GPI anchor deficiencies are	29	9	petkraw	CHARITÉ	\$ ⊕ / }
New pane	el					

My Ge	ene Panels Public	Gene Panels						
Select	Name	Description	Number of genes	Followers	Author			Actions
	Limb Genes	all genes associated with I	678	10	sandra.doelken		CHARITÉ	•
	Kingsmore Inherited Disease	Developed in collaboration	544	10	TruSight	\bowtie		•
	Subscribe							

Select My GeneTalk → Gene Panels to view,, create edit and share gene panels.

You can subscribe to public gene panels and use them for filtering and to stay up-to-date: Simply check the box in the list of public gene panels and click on *Subscribe*. The gene panel will now be listed in *My Gene Ganels*. When a gene panel is modified or commentated, all subscribers to the panel, will be notified.

If you want to create a gene panel, click New Panel. Now, you see a dialog for generating a gene panel. You can paste a list of genes or genomic regions in the Genes text box and give a short description for your panel. Use a meaningful name for your gene panel, maybe one that indicates the purpose of the panel. Check Publish for filtering if you want to allow other users to use your gene panel for filtering. Check My expertise if you want to get in contact with other users concerning the genes in your panel.

Name		
Genes Enter a collection of Entrez-IDs, Gene Enter a collection of Entrez-IDs, Gene Enter a collection of Entrez-IDs, Gene English separated by comma, newline, ab, or blank. Specify regions by (Chrom.Nr.Start,End), e.g. (9, 100000, 200000).		<i>.</i>
Description		
Publish for filtering Check this box if other GeneTalk users are allowed to use this panel for liltering.	⊌	
My expertise Check this box if you want to be listed as an expert for this gene panel.	€	
My level of expertise	Do not list me as expert for these genes	
Abstract for expertise		



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Filtering with Gene Panels

To filter VCF files for variants in a set of genes that, for example, are associated with a particular disorder use the *Gene Panel* tab in the filter menu. Select one of your — own or subscribed — gene panels. You can also enter one or more genes in the text box.

Set other filter parameters to your need, and click the *Filter* button at the bottom of the page to start the filter process.

Your Field of Expertise

If you want other users to contact you, for example, to discuss variants in genes you are interested in, define a set of genes as your expertise. You can state an expert level for every gene panel you created or subscribed (My GeneTalk \rightarrow Gene Panels \rightarrow edit icon \nearrow). You will then be visible to other users, for example, in the annotation list for a variant.

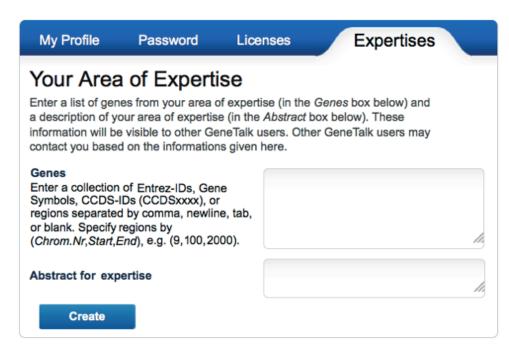
If you do not already have an expert gene panel, open your profile (My Genetalk → My Profile or click on your username in the title bar) and enter a list of genes and a short description in the Expertises tab.

Finding and contacting experts

If you click on a gene name anywhere in GeneTalk (or search for it using Search GeneTalk → Genes) you will get information about the gene itself, annotations to variants in this gene, and a list of experts. You can contact expert users by clicking on the envelope button next to the user name or — vice versa — others can contact you, if you are listed as an expert for this gene.

GeneTalk GmbH CEO:
Retzbacher Weg 83 Dr. Peter Krawitz
13189 Berlin, Germany Dr. Tom Kamphans

Function	onal Linkage Gene	e Panel	Frequency	Inheritance	Annotation
NEW:	Subscribe to a public g	ene panel			
addition to enter a co CCDS-ID: comma, n	al genes blection of genes that you want to be the selected gene panels (if any) bllection of Entrez-IDs, Gene Symb s (CCDSxxxx), or regions separate ewline, tab, or blank. Specify regior fr, Start, End), e.g. (9, 100000, 2000	. You can ools, ed by ons by			fi.
Select	Name	Description	Num of go	nber enes Author	Actions
	GPI anchor synthesis deficiency GPI anchor deficiencies are		ies are 29	petkraw	•



Name	PIGO	Entrez	<u>84720</u>
Location	9:35088685 - 350965	91 CCDS	
ID Type	Gene symbol	OMIM	<u>614749</u>
max. CDS	3270	GeneCards	PIGO
			Source: CCDS.2011-09
Experts	•		
Expert	Gene Panel	Abstract	
petkraw GPI anchor synthesis deficiency (subclass o		I am intere	ested in congenital impairments.

info@gene-talk.de Phone: +49 (0) 160 766 9042 Fax: +49 (0) 30 138 838 01 Commercial registry: Amtsgericht Charlottenburg Nr. HRB 153711B Due to continuous technological improvements, product specifications and features are subject to change without notice.