AUTHORIZATION TO USE AND DISCLOSE HEALTH INFORMATION (PATIENT IDENTIFICATION)



I authorize the laboratory that has conducted or will conduct my genetic testing under the ID YOUR IRD program (including the lab's employees, staff, and agents) and my physician to disclose to Spark® Therapeutics and its affiliates, partners, collaborators, and others (collectively, "Spark") the following:

- myname;
- contact information;
- · date of birth;
- information regarding my condition and diagnoses and the results of my genetic testing (collectively, "My Information") so that Spark may use My Information for the purposes described in this form.

Some additional pharmaceutical manufacturers and other third parties may receive de-identified results from the IYI program.

I authorize Spark to use My Information for the following purposes:

- to help Spark support the broad Inherited Retinal Disease (IRD) community by developing commercial programs and services that may be of interest to me or others with IRDs
- to contact me via mail, telephone, in electronic format or otherwise, to provide or offer information or services, including genetic counseling, that Spark believes to be of interest to me
- to provide me with educational or marketing information about IRDs and disease management
- to contact my healthcare provider(s) about products and services that may be relevant for me, including contacting additional laboratories for further analysis

Spark will not sell My Information or use or disclose My Information for unauthorized purposes.

I understand that this Authorization is voluntary and that my ongoing medical care or eligibility for healthcare benefits will not be affected if I decline to sign this Authorization form nor will it impact my ability to participate in Spark-sponsored programs in the future, but that I will not be able to participate in the **ID YOUR IRD® program** if I decide not to sign this Authorization.

I understand that I may revoke this Authorization at any time in writing by sending a letter to Spark at the address listed on the following page. Revoking this Authorization will prevent Spark from further using My Information but will not affect uses and disclosures of My Information that were already made in reliance on this Authorization.

AUTHORIZATION TO USE AND DISCLOSE HEALTH INFORMATION (PATIENT IDENTIFICATION)



I understand that once My Information has been disclosed, federal privacy laws, including the Health Insurance Portability and Accountability Act, may no longer apply or protect the information from further disclosure. Unless I expressly revoke this Authorization, it shall remain in effect for as long as I participate in the ID YOUR IRD® program, unless a sooner expiration date is required by state law. I may obtain a copy of this Authorization to keep for my records.

Print Name of Patient	Patient Date of Birth			
Signature of patient or parent/legal guardian of patient (if under the age of 18)	Date			
Print name of patient or parent/legal quardian	Relationship to patient (if patient/legal guardian)			

Submit this completed Patient Authorization Form with the sample or via fax to 415-276-4164 or email to partnershipsupport@invitae.com

To revoke this Authorization or to change your contact information, submit a written request to:

Spark Therapeutics 3737 Market Street Suite 1300 Philadelphia, PA 19104 Attn: Patient Services

TERMS AND CONDITIONS



THE ID YOUR IRD® PROGRAM TERMS AND CONDITIONS

The ID YOUR IRD program is a genetic testing program ("the Program") that tests for mutations in over 325 genes suspected to be associated with inherited retinal diseases. The testing is supported by Spark® Therapeutics, Inc. Your participation in the Program and use of Spark Therapeutics content and services is subject to the terms of the agreement between you and Spark Therapeutics set forth in these Program Terms and Conditions, which incorporate by reference the Spark Therapeutics general Terms of Use (sparktx.com/terms-of-use) and Privacy Policy (sparktx.com/privacy-policy). You may accept these Program Terms and Conditions by (1) clicking to accept or agree, where this option is made available to you, or (2) by signing this form at your physician's office when you agree to participate in genetic testing and share your genetic test results with Spark Therapeutics. You may not participate in the Program if you do not accept these Program Terms and Conditions.

To be eligible to participate in the Program, you must (1) be a US resident at the time you are tested and receive your test results; (2) suspected of having an Inherited retinal disease (IRD); (3) have the approval of your healthcare professional to have the genetic test; and (4) authorize in writing (via the Patient Authorization) that your healthcare professional and the genetic testing laboratory selected by Spark Therapeutics may test the genetic sample you provide and share your name, contact information and information regarding your condition, diagnoses, and results of your genetic testing (collectively, "Your Information") with Spark Therapeutics. If you are under the age of 18, you must have the approval of your legal guardian to participate in the Program.

The genetic test provided under the Program requires you to provide a saliva or blood sample to your healthcare professional. Your sample will be analyzed by a genetic testing company selected by Spark Therapeutics, and the results will be provided to your healthcare professional and to Spark Therapeutics. The genetic testing company or companies that perform the test are independent from Spark Therapeutics and Spark Therapeutics has no control over or influence over how the test is conducted. Spark Therapeutics makes no warranty that the Program will meet your requirements, that it will be secure or error-free, that the results will be accurate or reliable, or that the quality of any of the services or information will meet your expectations. You understand and agree that by participating in the Program, Spark Therapeutics will process, use and disclose Your Information only as permitted by your written authorization (the Patient Authorization) and the Spark Therapeutics Privacy Policy.

Testing results performed in connection with the Program are not intended to be comprehensive. The Program tests only for gene mutations related to IRD. The results of the genetic test provided to your healthcare provider by the testing company may be: (1) positive (if the gene associated with the IRD has been identified by the test); (2) negative (if no genetic cause of the IRD has been identified by the test); or (3) uncertain (if the test identified a genetic mutation, but it is unknown whether the identified mutation causes an IRD). YOU SHOULD CONSULT WITH YOUR OWN HEALTHCARE PROFESSIONALS ABOUT YOUR DIAGNOSES, GENETIC TESTING, AND GENETIC TESTING RESULTS. SPARK THERAPEUTICS DOES NOT PROVIDE MEDICAL ADVICE,

TERMS AND CONDITIONS



AND THE RESULTS OF THE PROGRAM ARE NOT INTENDED TO BE USED BY YOU FOR ANY DIAGNOSTIC PURPOSE OR AS A SUBSTITUTE FOR PROFESSIONAL MEDICAL ADVICE.

Spark[®] Therapeutics does not endorse, warranty, or guarantee the effectiveness of any specific course of action, resources, tests, physicians or other healthcare professionals, drugs, biologics, medical devices, products, procedures, opinions, or other information that may be offered to you or become available to you through the Program. Reliance on any information provided by Spark Therapeutics is solely at your own risk.

Through the Program, you will be offered an optional opportunity to discuss your genetic test results by telephone with a genetic counselor. If you choose this option, any advice provided by the counselor is independent of Spark.

If you choose to participate in the Program, you will not be responsible for the costs of the genetic test itself or the genetic counseling described in the previous paragraph. PLEASE BE AWARE, HOWEVER, THAT YOU WILL BE RESPONSIBLE FOR ANY OTHER COSTS THAT MAY BE INCURRED AS A RESULT OF PARTICIPATING IN THE PROGRAM, INCLUDING BUT NOT LIMITED TO THE COSTS OF VISITS OR CONSULTATIONS WITH YOUR HEALTHCARE PROFESSIONAL IN CONNECTION WITH THE GENETIC TEST OR THE TESTING RESULTS.

BY PARTICIPATING IN THE PROGRAM, YOU UNDERSTAND AND AGREE THAT YOU ACQUIRE NO RIGHT OR INTERESTS IN ANY INVESTIGATIONAL OR COMMERCIAL PRODUCTS THAT MAY BE DEVELOPED BY SPARK THERAPEUTICS AND/OR ITS COLLABORATING PARTNERS. No purchase is necessary to participate in the ID YOUR IRD program.

DISCLAIMER OF WARRANTIES. You expressly acknowledge and agree that your participation in the Program is at your sole risk, and the Program is provided on an "as is" and "as available" basis. Spark Therapeutics expressly disclaims all warranties of any kind, whether express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, and non-infringement.

LIMITATION OF LIABILITY. Spark Therapeutics does not control or endorse any actions resulting from your participation in the Program, and therefore, SPARK THERAPEUTICS SPECIFICALLY DISCLAIMS ANY LIABILITY WITH REGARD TO ANY ACTIONS RESULTING FROM YOUR PARTICIPATION IN THE SERVICES, TO THE EXTENT PERMITTED BY APPLICABLE LAW. YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT SPARK THERAPEUTICS SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED TO YOUR PARTICIPATION IN THE SERVICES.

These Program Terms and Conditions, which incorporate by reference the Spark Therapeutics general Terms of Use and Privacy Policy, as well as the Patient Authorization, constitute the entire agreement between you and Spark Therapeutics and govern your participation in the Program.





ORDER ID For Invitae internal use only

Requisition Form **ID YOUR IRD® TRF948-6**

This requisition form can be used to submit a specimen for the ID YOUR IRD® program, a sponsored testing program brought to you by Spark Therapeutics and Invitae Corporation. Please confirm that the patient meets the eligibility requirements for the program, including provision of an executed Patient Authorization Form. Submit the sample according to the kit instructions with the below Test Requisition Form and the completed and signed Patient Authorization Form that is included in the kit.

			ORDERI	NG OPTIONS				
1. ID YOUR IRD® PRO For individuals that mee			and wish to receive the pr	0 1 0	01			
This program			pected of having an inheri (select all that apply, patier gram does not test for gene	ts must have at least o	ne to qualify):		of the following	
	O Nyctalopia		0	Deterioration of color	vision			
	O Peripheral f	ield loss	0	Photophobia				
	Central visi	on loss	0	Any of the above with s	syndromic findings			
PA	TIENT IN	FORMATIO	ON	-	CLINICIAN IN	FORMAT	ION	
irst name	MI	Last name		Organization name				
Date of birth (MM/DD/YYYY) Biological sex MRN (medical			ll record number)	Phone		Fax		
, ,		- ,	aucasian O Ashkenazi Jewish der O French Canadian	Address			City	
O Sephardic Jewish				State/Prov	ZIP/Postal code	Countr	у	
Phone	Email address	(report access a	fter clinician releases)	Primary clinical con	Primary clinical contact name (if different from ordering provider) NPI			
Address			City	Primary clinical con	tact email address (for report	200000)		
				Primary clinical con	naci emaii address (for report	accessy		
State/Prov	ZIP/Postal cod	e Coun	try	1 2 1 1	er (select one ordering provid			

Ship a kit to this patient (optional) by by submitting this form and Patient Authorization Form via fax to 415-276-4164 or email partnershipsupport@invitae.com Kit type: O Buccal swab kit O Saliva kit **Ship to:** Address above Alternate address: SPECIMEN INFORMATION Specimen type: Blood (3-mL purple EDTA) -OR- Buccal Swabs (OCD-100, 2 devices) -OR- Saliva (Oragene™) -OR- DNA source: _ We are unable to accept blood/buccal/saliva from patients with: • Allogeneic bone marrow transplants • Blood transfusion < 2 weeks prior to specimen collection Specimen collection date (MM/DD/YYYY): If not provided, the day before specimen receipt will be used Special cases: History of/current hematologic malignancy in patient **INVITAE PARTNER CODE**

SPARK

Phone		Fax					
Address			Cit	у			
State/Prov	ZIP/Postal code	Cour	Country				
Primary clinical contact name	(if different from o	rdering provi	der)	NPI			
Primary clinical contact email	address (for report	access)					
Ordering provider (select o	one ordering provid	er by markin	g the	checkbox before the name)			
Name	NPI	E	mail a	ddress (for report access)			
0							
0							
0							
0							
0							
0							
Additional clinical or laboratory contacts (optional, to share access to order online)							
Share this order with the primary clinical contact's default clinical team, manage at invitae.com							
Name	Name Email address (for report access)						

Email address (for report access)

Name





					C	CLINICA	L HISTORY					
FAMILY HISTORY												
Is there a family histo	ry of disease f	or which t	he patient is bei	ing tested	. C	Yes ON	o If yes, describe below a	nd attach pediş	gree and/or clinic	al notes.		
Relative's relationship to this patient Maternal or paternal Or paternal				Age at diagnosis	Relative's relationship Maternal Diagnosed co			dition	Age at diagnosis			
PERSONAL HISTORY												
Is/was this patient a Provide details in the r		-					TSymptomatic means this p testing being ordered and cou					
CLINICAL HISTORY												
Age of onset:	_						Extraocular featu	res		YES	NO	UNKNOWN
Clinical diagnosis, if	known:						Developmental d	elay		0	0	0
							Intellectual disab	ility		0	\circ	0
							Sensorineural hea	aring loss		0	0	0
							Skeletal abnorma	lities		0	0	0
							Renal disease			0	0	0
							Genital abnormal	ities		0	0	0
Ocular features			YES	NO	UN	KNOWN	Ataxia			0	0	0
Bone spicules/pigme			0	0		0	Organ laterality de	efect (e.g., siti	us inversus)	0	0	0
Optic nerve atrophy/optic disc pallor		O	0		0	Molar tooth sign/vermian hypoplasia			0	0	0	
Abnormal fundus ap	pearance		0	0		0	Other extraocular	features:		· ·		
Abnormal ERG resul	ts		0	0		0						
Is disease progressiv	e in this indi	vidual?	0	0		0						
Other ocular features and/or detailed test results (e.g., ERG):												
Y — test performed and lor v	nedical history to	aken AND n	naterial finding renc	rted: N — te	est nerfo	ormed and for	medical history taken AND n	o material findin	a: I Inknown — not	in medical rec	ord and for tes	t not performed
r – test performed anaform	neuleur history te	Ken AIVD II	duentar finding repo	110u, 14 — 10	si perju	innea anayor	medical history when AIVD h	o mavenar jinam	g, Onknown – nov	m mealear rec	ora unujor ies	i noi perjormeu
	ОР	TIONA	L - REQUE	STED \	/ARI	ANTS F	OR THIS PATIEN	IT'S REPC	RT, IF KNO	OWN		
To have the presence	or absence of	specific vai	riants commente	ed on in th	nis pat	ient's repor	t, provide the details belo	w. For gene-sp		-		
Was the proband (inc	dividual with v	rariant) te	sted at Invitae?	O Yes,	Invita	e Order ID	: RQ#		O No: Attack		•	· /
Variant(s) (e.g. GENE	c.2200A>T (p.T	hr734Ser) 1	VM_00012345) If	left blank,	all vari	ants identifie	d in the proband will be com	mented on.		ient's relati		
										nt OSibli d OSelf	_	





TEST SELECTION – Select test(s) from either option 1 or 2 below:

1. ID YOUR IRD® PROGRAM - Indicate test(s) to be performed below:

Test code Test name	# of genes	Gene list
72100 Invitae Inherited Retinal Disorders Panel	330	ABCA4, ABCC6, ABHD12, ACBD5, ACO2, ADAM9, ADAMTS18, ADAMTS14, ADGRA3, ADGRV1, ADIPOR1, AGBL5, AHI1, AHR, AIPL1, ALMS1, ARHGEF18, ARL13B, ARL2BP, ARL3, ARL6, ARMC9, ARSG, ASRGL1, ATF6, ATOH7, B9D1, BBIP1, BBS1, BBS10, BBS12, BBS2, BBS4, BBS5, BBS7, BBS9, BEST1, C10orf11, C12orf65, C1QTMF5, C8orf37, CA4, CABP4, CACNA1F, CACNA2D4, CAPN5, CC2D2A, CCT2, CDH23, CDH3, CDH7, CEP164, CEP19, CEP250, CEP290, CEP41, CEP78, CEP83, CERKL, CFAP410, CHM, CIB2, CISD2, CLCC1, CLN3, CLN5, CLN6, CLN8, CLNR1, CLUAP1, CNGA1, CNGA3, CNGB1, CNGB3, CNNM4, COL11A1, COL11A2, COL18A1, COL2A1, COL9A1, COL9A2, COL9A3, CPLANE1, CRB1, CRX, CSPP1, CTNNA1, CTSD, CWC27, CYP4V2, DHDDS, DHX32, DHX38, DNAJC17, DRAM2, DSCAML1, DTHD1, EFEMP1, ELOVL4, EMC1, ERCC6, EXOSC2, EYS, FAM161A, FBLN5, FLVCR1, FRMD7, FSCN2, FZD4, GDF6, GNAT1, GNAT2, GNB3, GNPTG, GNS, GPR143, GPR179, GPR45, GRM6, GRN, GUCA1A, GUCA1B, GUCY2D, HARS, HGSNAT, HK1, HMCN1, HMX1, IDH3A, IDH3B, IFT140, IFT172, IFT27, IFT43, IFT74, IFT80, IFT81, IFT88, IMPDH1, IMPG1, IMPG2, INPPSE, INVS, IQCB1, ITM2B, JAG1, KCNJ13, KCNV2, KIAA0586, KIAA1549, KIF11, KIF7, KIZ, KLH17, LCA5, LRAT, LRIT3, LRP2, LRP5, LYST, LZTFL1, MAK, MAPKAPK3, MERTK, MFN2, MFRP, MFSD8, MIR204, MKKS, MKS1, MPD2, MTTPA, MTTP, MYO7A, NAGLU, NBAS, NDP, NEK2, NEUROD1, NMNAT1, NPHP1, NPHP3, NPHP4, NR2E3, NR2F1, NRL, NYX, OAT, OCA2, OFD1, OPA1, OPA3, OPN1SW, OR2W3, OTX2, P3H2, PAX2, PAX6, PCARE, PCDH15, PCYT1A, PDE66, PDE66, PDE66, PDE66, PDE66, PDE66, PDE70, PPA1, PPA1, PEX10, PEX11B, PEX12, PEX13, PEX14, PEX16, PEX19, PEX2, PEX26, PEX3, PEX5, PEX6, PEX7, PHYH, PITPNM3, PLA2G5, PLK4, PNPLA6, POC1B, POC5, POMGNT1, PPT1, PRCD, PROM13, PROM1, PRPF3, PRPF31, PRPF4, PRPF6, PRPF8, RPPH2, PRPS1, RAB28, RAX2, RBP1, RBP3, RBP4, RCBTB1, RD3, RDH11, RDH12, RDH5, REEP6, RGR, RGS9, RGS9BP, RHO, RIMS1, RLBP1, ROM1, RP1, RP11, RP2, RP9, RPE65, RPGR, RPGR, GGFF, SPGR, RGS9, RGS9BP, RHO, RIMS1, RLBP1, ROM1, RP1, RP11, RP2, RP9, RPE65, RPGR, RPGR, GGFF, TDLE1, TYRE, TTLL5, TTREN1, TREN1, TSPAN12, TTC21B, TTC8, TTLL5, TTREN1, TSPAN12, TTC1B, TTC8,

2. GENE-SPECIFIC FAMILY FOLLOW-UP TESTING For relatives of a program participant ('proband') who received a Pathogenic/Likely Pathogenic result or approved VUS.

Family follow-up testing for Proband's Invitae Order ID: RQ#	This patient's relationship to proband: O Parent O Sibling O Grandchild O Child O Other:	Gene(s) to be tested in this patient:
OTE: The presence or absence of all variants identified in the probay	ad for the gene(s) ordered for gene specific family follow up y	will be commented on in this nations's report unless a limited selection is

NOTE: The presence or absence of all variants identified in the proband for the gene(s) ordered for gene-specific family follow-up will be commented on in this patient's report unless a limited selection is specified in the **Requested Variants** section above. Invitae will report any Pathogenic/Likely Pathogenic variants found in this patient for the gene(s) ordered.

Invitae continually updates its panels based on the most recent evidence. If an order is placed using an outdated test requisition form, Invitae reserves the right to upgrade ordered tests to their current versions. Test IDs containing add-on codes will include the original panel as well as the add-on.

By signing this form, the medical professional acknowledges that the individual/family member authorized to make decisions for the individual (collectively, the "Patient") has been supplied information regarding and consented to undergo genetic testing, substantially as set forth in Invitae's Informed Consent for Genetic Testing (www.invitae.com/forms). The medical professional will retain evidence that the patient consented to genetic testing. The Patient has been informed that Invitae may notify them of clinical updates related to genetic test results (in consultation with the ordering medical professional as indicated) and has been informed that deidentified (also referred to as pseudonymized) patient data may be used and shared with third parties in connection with the Program, for research and commercial purposes. Also, via the Patient Authorization, the medical professional acknowledges that the Patient has been informed of how their identifiable information may be used and disclosed. For orders originating outside the United States, the Patient has been informed that their personal information and specimen will be transferred to and processed in the United States. The medical professional warrants that (i) he/she will not seek reimbursement for this no-charge test from any third party, including but not limited to government healthcare programs; (ii) participation in the Program will not influence the his/her medical decisions; (iii) he/she is not obligated to purchase or prescribe any product or service offered by a sponsor of the Program; (iv) he/she is not obligated to participate in or to encourage patients to participate in any clinical trial or other research program conducted by a sponsor; and (v) he/she will participate in the Program in accordance with applicable laws. The medical professional directly in connection with the Program. A list of third party partners will be provided upon request. I attest that I am authorized under applicable law to order this test.

Medical professional signature (required)	Date (MM/DD/YYYY)		