INVITAE

PATH4WARD
Patient Access To Hope
for Rare Primary Immunodeficiencies

**ORDER ID**
For Invitae internal use only

# Requisition Form
**PATH4WARD TRF950-3**

This requisition form can be used to submit a specimen for the PATH4WARD program, a complimentary Invitae Severe Congenital Neutropenia (SCN) Panel U.S. testing program brought to you by X4 Pharmaceuticals, Inc. and Invitae Corporation. Please confirm that the patient meets the eligibility requirements for the program. To submit orders for genetic testing outside of this program, please order through Invitae's online portal or use a standard requisition form, accessible at www.invitae.com/order-forms.

## REQUIRED PROGRAM ELIGIBILITY:

**This program is available to patients in the U.S. and Canada with a history of chronic severe neutropenia (ANC ≤ 500/uL), permanent or intermittent (cyclical), of unknown origin, AND with a clinical presentation compatible with chronic idiopathic neutropenia or severe congenital neutropenia.**

## PATIENT INFORMATION

| First name | MI | Last name |
|---|---|---|
| Date of birth (MM/DD/YYYY) | Biological sex ◯ M ◯ F | MRN (medical record number) |

Ancestry ◯ Asian ◯ Black/African American ◯ White/Caucasian ◯ Ashkenazi Jewish ◯ Hispanic ◯ Native American ◯ Pacific Islander ◯ French Canadian ◯ Sephardic Jewish ◯ Mediterranean ◯ Other:

| Phone | Email address |
|---|---|
| Address | City |
| State | ZIP code / Country |

## SPECIMEN INFORMATION

Label each tube with the patient's full name, date of birth, and specimen collection date.
A requisition form MUST accompany each specimen. www.invitae.com/specimen-requirements

Specimen type : ◯ Blood ◯ Saliva ◯ Assisted saliva ◯ DNA - source: _____

*DNA must be extracted in a CLIA or other suitably certified laboratory*

*We are unable to accept blood/saliva from patients with:*

- *Allogeneic bone marrow transplants*
- *Blood transfusion <2 weeks prior to specimen collection*

**Collection date (MM/DD/YYYY)** *If not provided, date will be 1 day prior to our receipt of specimen. For DNA, provide date retrieved from archive.*

Special cases : ◯ History of/current hematologic malignancy

## REASON FOR TESTING

**Previous results** *(if applicable and not included in clinical criteria - enclose copy of report)*

## PRACTICE INFORMATION

**Practice name and address**

| Institution/practice name | |
|---|---|
| Phone | Fax |
| Address | City |
| State / ZIP code | Country |

**Primary clinical contact**

| Name | Role/title |
|---|---|
| Phone | NPI |
| Email address (for report access) | |

**Ordering physician**

◯ **Same as primary clinical contact**

| Name | NPI |
|---|---|
| Email address (for report access) | |

**Additional clinical or laboratory contact (optional)**

| Name | Email address (for report access) |
|---|---|

## INVITAE PARTNER CODE

PATH

## FAMILY VARIANT TESTING

**Invitae's family variant testing programs involves full analysis of the gene in which the original family member's variant was identified. For more information, visit www.invitae.com/family-testing.**

*Please attach the proband's clinical report or provide Invitae RQ#*

| INVITAE PROBAND RQ# | RELATIONSHIP TO PROBAND | GENE(S) | VARIANT(S) |
|---|---|---|---|
| | | | |

## PATH4WARD PROGRAM ELIGIBILITY/CLINICAL INFORMATION

**Required patient information:**

**Required eligibility:**

☐ History of chronic severe neutropenia (ANC ≤ 500/uL), permanent or intermittent (cyclical), of unknown origin

AND

☐ Clinical presentation compatible with chronic idiopathic neutropenia or severe congenital neutropenia

**Additional clinical criteria (optional):**

☐ Bronchiectasis
☐ Cervical dysplasia and cancer
☐ Congenital heart anomalies
☐ COPD
☐ Extra-hematopoietic manifestations (e.g., central nervous system, pancreas deficiency, etc.)
☐ Familial history of similar symptoms
☐ Hearing Loss
☐ Hypogammaglobulinemia
☐ Myelokathexis
☐ Recurrent or severe infections (e.g., otitis, gingivitis, pneumonia, skin infections, etc.)
☐ Severe or long-lasting refractory warts

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**RE-REQUISITION**

The PATH4WARD Program offers one re-requisition to the Invitae Primary Immunodeficiency (PID) Panel at no additional cost within 90 days. For more information and to request online, please visit **www.invitae.com/re-requisition**.

☐ **Check here if you would like to automatically reflex to the Invitae Primary Immunodeficiency (PID) Panel upon a negative result in the Invitae Severe Congenital Neutropenia (SCN) Panel.**

**ASSAY**

Invitae is a CAP-accredited and CLIA-certified clinical diagnostic laboratory performing full-gene sequencing and deletion/duplication analysis using next-generation sequencing technology (NGS). Search for details on the analysis of any gene in our test catalog at **www.invitae.com/physician/search**.

To request a complimentary specimen collection kit visit **www.invitae.com/request-a-kit**

**SHIPPING INSTRUCTIONS**

Please ship specimen to Invitae:

**Attn: Invitae Client Services**
**1400 16th Street**
**San Francisco, CA 94103 USA**

*Invitae continually updates its panels based on the most recent evidence. Please note that if an order is placed using an older version of this form, Invitae reserves the right to upgrade any ordered panel(s) to the current version(s).*

## TESTS INCLUDED IN THE PROGRAM

| Test code | Test name | # of genes | Gene list |
|---|---|---|---|
| ○ ZMDBV8HN | Invitae Severe Congenital Neutropenia Panel | 23 | *AK2, AP3B1, CD40LG, CLPB, CSF3R, CXCR4, ELANE, G6PC3, GATA2, GFI1, HAX1, JAGN1, LAMTOR2, LYST, RAB27A, RMRP, SLC37A4, STK4, TAZ, TCN2, VPS13B, VPS45, WAS* |

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/patient-consent). And in connection with the PATH4WARD program, 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 Invitae may share clinician and institution contact information and certain Patient de-identified information (age, gene, variant, and classification) but not including the name of Patient or Patient's guardian, with third parties, including X4 Pharmaceuticals, for research and commercial purposes and to contact their medical professional. The Patient has been informed that (i) the Patient's personal information and specimen will be transferred from Canada to the U.S. for processing in the U.S. and (ii) de-identified Patient data may be used and shared for research and commercial purposes in the U.S. The medical professional warrants that he/she will not seek reimbursement for this sponsored test from any third party, including but not limited to government healthcare programs. The medical professional also hereby acknowledges that organization and clinician contact information provided in the order may be shared with third parties, including X4 Pharmaceuticals that may contact the medical professional directly in connection with the PATH4WARD program, or their products. The medical professional understands that the use of this sponsored test is not intended to be, nor should it be construed as, either express or implied, an obligation or inducement for the medical professional to recommend, purchase, order, prescribe, promote, administer or otherwise support any commercial product or any other Invitae product or service. In addition to the above, I attest that I am the ordering physician, or I am authorized by the ordering physician to order this test, or I am authorized under applicable law to order this test.

| Medical professional signature (required) | Date |
|---|---|
| | |