

## The PTEN Study: Eligibility Criteria and Clinical Features Checklist

Please note that patient results will not be released until all required study documents and confirmatory records have been received.

**If this information is not available to you for inclusion with the patient's sample and other required paperwork, please ensure that the institution(s) where these records may be found is listed on the medical release form so our research team can retrieve this information.**

Also please note: **whether macrocephaly is present or not, an OFC measurement is now a requirement for study participation.** Our study will allow the following measurements to "count" as macrocephaly for adults:

- Men: Minimum of 58.0 cm
- Women: Minimum of 57.3 cm

### Eligibility Criteria

Patients with the following will **automatically** qualify for study participation:

- Known *PTEN* mutation or variant of uncertain significance
- Lhermitte-Duclos disease
- Pigmented macules of the glans penis
- Clinical diagnosis of Proteus or Proteus-like syndrome
- Adult patients with a score of 10 or greater per the Cleveland Clinic *PTEN* Risk Calculator (website: <http://www.lerner.ccf.org/gmi/ccscore/>)
- Pediatric patients with macrocephaly plus at least one of the following:
  - Autism/mental retardation/developmental delay
  - Lipoma, biopsy-proven trichilemmoma, oral papillomatosis, or hemangioma
  - Arteriovenous malformation
  - One or more gastrointestinal polyp(s)

In addition, patients with the following combination of findings from our clinical features checklist will qualify for study participation:

- Two major criteria
- One major plus two minor criteria
- Three minor criteria

### Exclusion Criteria

**Please do not submit the following:**

- Patients with genetic tests (i.e. *BRCA* testing) pending
- Patients with other diagnostic testing that explains their major features (example: patient has endometrial cancer, fibrocystic breast disease, and lipoma but also has deleterious *MSH2* mutation)
- Patients for whom pathology records are unattainable or at an unknown institution.

If you have a question about whether or not your patient qualifies for this study, please a clinical summary and a copy of the pedigree to Jessica Mester, genetic counselor study coordinator, for review by fax: (216) 445-6935 or email: [pten@ccf.org](mailto:pten@ccf.org).

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Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Gender: \_\_\_\_\_

Patient Height: \_\_\_\_\_ Patient Weight: \_\_\_\_\_ Patient OFC (in cm): \_\_\_\_\_

AQ = automatic qualification; M = major criteria; m = minor criteria; see revised eligibility criteria on above page to ensure your patient qualifies.

✓ if present	CNS Features	AQ/M/m	Documentation requested
	Lhermitte-Duclos disease	AQ	MRI and/or biopsy
	Macrocephaly	M	Clinic note
	Autism	m	Clinic note
	Mental retardation	m	Clinic note
	Developmental delay	m	Clinic note
✓	<b>Endocrine Features</b>	<b>AQ/M/m</b>	<b>Documentation requested</b>
	Thyroid cancer (not medullary)	M	Pathology report
	Goiter	m	Imaging
	Thyroid nodule(s)	m	Imaging
✓	<b>Breast Features</b>	<b>AQ/M/m</b>	<b>Documentation requested</b>
	Invasive carcinoma	M	Pathology report
	Ductal carcinoma in situ	m	Pathology report
	Lobular carcinoma in situ	m	Pathology report
	Breast papilloma	m	Pathology report
	Breast fibroadenoma	m	Pathology report
	Fibrocystic breast disease	m	Pathology report, imaging, and/or clinic note
✓	<b>Dermatologic Features</b>	<b>AQ/M/m</b>	<b>Documentation requested</b>
	Pigmented macules of the glans penis	AQ	Clinic note
	Biopsy-proven trichilemmoma(s)	M	Pathology report
	Oral-mucosal papillomatosis	M	Clinic note
	Lipoma(s)	m	Pathology report
✓	<b>Cardiovascular Features</b>	<b>AQ/M/m</b>	<b>Documentation requested</b>
	Arteriovenous malformation	m	Pathology report and/or imaging
✓	<b>Gastrointestinal Features</b>	<b>AQ/M/m</b>	<b>Documentation requested</b>
	Hamartomatous (juvenile, Peutz-Jegher) polyp(s)	M	Pathology report
	Ganglioneuroma(s)	M	Pathology report
	Hyperplastic polyp(s)	m	Pathology report
	Glycogenic acanthosis	m	Endoscopy report
✓	<b>Genitourinary Features</b>	<b>AQ/M/m</b>	<b>Documentation requested</b>
	Endometrial (uterine) cancer	M	Pathology report
	Uterine fibroid(s)	m	Pathology report and/or imaging
	Renal cell (kidney) cancer	m	Pathology report
	Congenital genitourinary defect	m	Imaging or clinic note
	Other genitourinary tumor (specify):	m	Pathology and/or imaging
✓	<b>Other Features</b>	<b>AQ/M/m</b>	<b>Documentation requested</b>
	Clinical diagnosis of Proteus or Proteus-like syndrome	AQ	Clinic note

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Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Gender: \_\_\_\_\_

**Other Findings:** Please circle present (P), absent (A), or unknown (U) for each.

MRI-proven megencephaly	P	A	U	Dermatofibroma	P	A	U
Malignant CNS tumor	P	A	U	Fibroma of other organ	P	A	U
Benign CNS tumor	P	A	U	GI polyp other than listed previously	P	A	U
Demyelinating leukodystrophy	P	A	U	Colon cancer	P	A	U
Hemangioma of skin	P	A	U	Other GI malignancy	P	A	U
Hemangioma of other organ	P	A	U	Melanoma	P	A	U
Acral keratoses	P	A	U	Other malignant skin cancer	P	A	U
“Skin tags”, pathology unknown	P	A	U	Hearing loss	P	A	U
Hashimoto’s (chronic lymphocytic) thyroiditis	P	A	U	Other invasive cancer(s) Specify: _____	P	A	U

**Other History:** Please circle yes (Y) or no (N) to indicate whether or not the patient has undergone the following:

Brain CT	Y	N	Breast mammogram	Y	N
Brain MRI	Y	N	Breast ultrasound	Y	N
Brain biopsy	Y	N	Breast MRI	Y	N
Thyroid ultrasound	Y	N	Breast biopsy	Y	N
Other thyroid scan: _____	Y	N	Breast lumpectomy	Y	N
Thyroid FNA	Y	N	Unilateral mastectomy	Y	N
Partial thyroidectomy	Y	N	Bilateral mastectomy	Y	N
Total thyroidectomy	Y	N	Hysterectomy	Y	N
Abdominal ultrasound	Y	N	Unilateral oophorectomy	Y	N
Abdominal CT	Y	N	Bilateral oophorectomy	Y	N
Abdominal MRI	Y	N	CT Angiography (specify organ): _____	Y	N
Pelvic ultrasound	Y	N	MR Angiography (specify organ): _____	Y	N
Pelvic CT	Y	N	Biopsy of other organ(s): _____	Y	N
Pelvic MRI	Y	N	Other scans or procedures not listed here: _____	Y	N
Colonoscopy	Y	N			
EGD/Upper endoscopy	Y	N			
Partial colectomy	Y	N			
Total colectomy	Y	N			
Biopsy of any skin lesion	Y	N			

**Other Testing:** Please check to indicate whether or not the patient has had any of the following genetic tests and give results. Please include a copy of the lab report for any tests that have been done.

✓	Test name	Result		
	<i>BRCA1/2</i> sequencing and 5-site rearrangement panel	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> VUS
	<i>BRCA1/2</i> Multisite-3 panel	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	
	BART	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> VUS
	Chromosome analysis (Karyotype or array)	<input type="checkbox"/> Abnormal	<input type="checkbox"/> Normal	<input type="checkbox"/> VUS
	Clinical <i>PTEN</i> sequencing	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> VUS
	Clinical <i>PTEN</i> MLPA	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> VUS
	Clinical <i>PTEN</i> promoter analysis	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> VUS
	Fragile X testing	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> VUS
	MSI testing	<input type="checkbox"/> High	<input type="checkbox"/> Stable	<input type="checkbox"/> Low
	IHC analysis	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Equivocal
	Other gene testing (specify): _____	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> VUS
	Other gene testing (specify): _____	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> VUS

**Banking Checklist: To be completed for all studies**

Subject Name: _____ DOB: _____	
Date of blood draw: _____ <i>If CCF patient: CCF#</i> _____	
<b><u>MANDATORY</u></b>	
Has another family member enrolled into any of our studies? ( <i>please circle one</i> ) Yes No	
-If so, what is the family member's first and last name: _____	
-What is this patient's relationship to the above family member: _____	
<b><u>MANDATORY</u></b>	Subject's Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female
Subject Race (check all that apply):	
<input type="checkbox"/> Asian	<input type="checkbox"/> American Indian and Alaska Native
<input type="checkbox"/> Native Hawaiian and Other Pacific Islander	<input type="checkbox"/> Black or African American
	<input type="checkbox"/> White <input type="checkbox"/> Other
Subject Ethnicity: <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Not Hispanic or Latino	
Country/countries of origin: _____	
Enrolling Healthcare Provider: _____	
<b>Please note: patient results will be sent to this individual via confidential e-mail.</b>	
Title: _____	Institution: _____
Phone: _____	E-mail: _____

- Please check the box by the study/studies for which you are submitting a sample
- Check off each required document to signify that it is included
- Send all documents with sample

**Required documents for all studies:**

- Original signed informed consent form – **only institutions with IRB approval letters on file at CCF may sign consents. Please see information on individual study websites.**
- Completed medical release form
- Pedigree
- Contact information page
- Copy of medical summary/documentation/pathology reports (if available)

<input type="checkbox"/>	<p><b><u>The PTEN Study</u></b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Meets study criteria per checklist</li> <li><input type="checkbox"/> Participant does not fully meet study criteria, but pre-approval for participation has been obtained from genetic counselor study coordinator</li> <li><input type="checkbox"/> Family member of previous study participant</li> </ul> <p><b><u>Additional required documents:</u></b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Completed PTEN Clinical Features Checklist</li> </ul>
<input type="checkbox"/>	<p><b><u>The “Funny Polyp” Study</u></b></p>
<input type="checkbox"/>	<p><b><u>The SDH Study – Additional required documents:</u></b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Completed SDH Clinical Features Checklist</li> </ul>
<input type="checkbox"/>	<p><b><u>General Cancer Banking:</u></b> If not a CCF patient, submission for this study was pre-approved by the following research team member: _____</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Diagnosis: _____</li> </ul>