

CAMRIS SOP # 102

Technical Development (Techdev)

Responsible Committee:	Effective From:	Last Approved:	Next Review	Next Approval:
Administrative	06/11/2026	05/28/2025	04/28/2026	05/28/2026

1. Purpose

This standard operating procedure (SOP) describes the use of unbooked scanner time for technical development (techdev). While techdev time is not billed, CAMRIS must track this time and ensure it is being used appropriately.

2. Scope

This procedure applies to all techdev scans performed on CAMRIS-managed scanners or hospital-managed scanners during the time they are made available to CAMRIS for research.

3. Instructions and Procedures

3.1. Allowed uses of data collected during techdev

Techdev time is allocated to support the development of novel MRI methods, recognizing that this work often involves significant time at the scanner to debug.

CAMRIS recognizes that techdev work can, on occasion, produce results appropriate for publication in conference abstracts (e.g., at ISMRM). As such, we do allow groups to submit conference publications based on work performed during techdev time.

Groups who require funding support to acquire data for journal publications should apply for Prodev time (see CAMRIS SOP # 103).

3.2. Access to techdev time

3.2.1. Independent scheduling of techdev time

Independent scheduling of techdev time is offered to Penn faculty who volunteer on the CAMRIS protocol review committee. Faculty may opt to delegate the role on the review committee to a Research Investigator or Senior Research Investigator in their lab.

Each faculty member with independent scheduling privileges will be provided a techdev scheduling account. All Level 3 operators associated with a faculty member are enabled to book via the faculty member's techdev account.

3.2.2. Techdev user responsibilities

Techdev users must be certified by CAMRIS as Level 3 operators. Techdev users must follow all relevant CAMRIS SOPs, including SOP # 101 on booking and scheduling, and SOP # 201 on the responsibilities of independent scanner operators. In particular, all techdev time must be scheduled on the calendar, and operators must log in and out of the schedule as described in those SOPs. These processes help ensure that all techdev time is appropriately recorded.

3.3. IRB and IACUC Protocols Used for Techdev

Techdev with human participants or animals can only be performed under CAMRIS-approved IRB or IACUC protocols.

3.3.1. Lab- managed techdev IRB and IACUC protocols

Labs that wish to perform techdev routinely are required to create their own techdev protocols. CAMRIS can provide example language for these protocols to assist in their creation. In addition, an IRB protocol can be approved both for techdev and regular paid bookings; two IRB protocols are not necessary.

Once a protocol including technical development activities is approved by the IRB, it can be submitted to CAMRIS for review as a techdev protocol, via the standard protocol application. Once approved, it is the responsibility of the lab to ensure that the protocol is maintained following all IRB guidelines, in addition to ensuring that all operations under this protocol comply with CAMRIS rules for techdev.

All techdev protocols must include a process for screening participants for MRI safety before each scan. It is the responsibility of the PI to ensure this documentation is correctly maintained. CAMRIS can provide an example screening form as part of the techdev protocol template.

3.3.2. CAMRIS-managed techdev IRB protocol

CAMRIS maintains a central techdev IRB that serves groups for whom establishing a lab-managed techdev IRB is not feasible. This is generally applicable to groups with very infrequent needs for techdev time. The CAMRIS-managed techdev IRB protocol is intended to serve studies that need assistance validating or optimizing a protocol in healthy control participants. Only CAMRIS staff can use this protocol; research labs cannot use the CAMRIS techdev protocol themselves. Groups who wish to scan a human participant under the CAMRIS techdev protocol must book a consultation session using the CAMRIS Help Desk.

4. Update History

Date:	Description of Revision
5/28/2025	Initial version