

CFAS ART Laboratory SIG

Process for the Certification of New Scientific Directors and Laboratory Directors

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Preamble

In September 2013 the ART Lab SIG completed the process of grandfathering the Scientific and Laboratory Directors then working in Canadian ART Centres, which was ratified by the CFAS Board of Directors. This was followed by the grandfathering of trained Clinical Embryologists and Laboratory Andrologists working in ART Centres across Canada based on recommendations from these certified Directors. The first examination for the certification of Clinical Embryologists and Laboratory Andrologists who have completed their training since then was held on 14 April 2018.

All these certifications are based upon the fundamental principle of assessing candidates' competencies as per the current ART Lab SIG documents approved by the CFAS Board [1-3]. The value of such a competency-based approach was illustrated by the adoption of a fundamentally similar scheme by the international society Alpha Scientists in Reproductive Medicine in its 2015 Consensus Meeting on the Professional Status of the Clinical Embryologist [4].

However, given the time – and cost – required to develop the validated written examination for certifying new Clinical Embryologists and Laboratory Andrologists (of whom there are and will be many) it is totally unrealistic to consider a similar mechanism for the Director positions: while there might be an initial group of 4 to 6 candidates needing to be certified, on an annual basis going forwards there will likely be only 1 or 2 (or even none).

Structure of the Proposed Scheme

- 1. General Principle of “Pre-qualification”:** It is expected that an individual will apply for certification as a Scientific or Laboratory Director BEFORE taking up such a senior, responsible position. The governing principle is that an individual should demonstrate that (s)he has all the competencies to hold such a position before starting to work in that role. This is to avoid (i) individuals without the necessary competencies having to try and “learn on the job”; (ii) the attendant problems for both the individual and the clinic of having someone who was appointed to such a position and then found to be unable to perform adequately; and (iii) the risks to the clinic of having a Scientific or Laboratory Director who is not fully competent, or does not have the necessary human resources and team-building skills, and the resultant failure of quality and risk management activities.
- 2. Examination Procedure:** Given the breadth and depth of understanding, and especially the required knowledge integration, that is expected of a Scientific or Laboratory Director, it will be extremely hard, and perhaps even impossible, to establish competency within a multiple-choice written exam format (even with the help of people like Touchstone). It is therefore proposed that a viva voce type of exam (similar to a PhD defence) be employed incorporating a series of OSCE (Objective Structured Clinical Examination) questions.
- 3. Panel Composition:** 3 already certified Directors; for new Lab Directors = 1 x Scientific Director + 2 x Lab Directors; for new Scientific Directors = 2 x Scientific Directors + 1 x Lab Director (recognizing the greater research competency expectation of a Scientific Director). For an Andrology Lab Director there

should be at least 2 assessors who are recognized as having specialist andrology lab experience. Assessors will be selected by the ART and Andrology Lab SIGs' executives, and will be ratified by the CFAS Board of Directors.

4. **General Mechanism:** The panel will present the candidate with OSCE questions, which are pre-planned, detailed scenarios that reflect real world experiences in ART Labs, and the candidate will explain how (s)he would deal with them. Rather than expecting a simple "all-in-one" type of answer, further in-depth questioning would explore the scenario in more detail. To pass a scenario a simple majority of the 3 examiners would be needed.
5. **Areas to be Examined:** All of the areas of competency listed in the current CFAS competencies document would be covered. There would not necessarily be a separate scenario for each competency; some scenarios would be amenable to expansion so as to include assessment of other competencies.
6. **OSCE Examination:** Each candidate evaluation will involve 7 to 10 typical OSCE-style scenario-based questions, with reasonable time allowed for each response (likely 15 minutes). This would ensure the candidate is able to get to the key answers without too much help from the assessors. Scenarios will all present realistic real-world situations. Obviously there will be no "right" or "perfect" answers, but at the time of preparation and validation of a scenario a "marking key" to identify key responses / approaches from the candidate for him/her to be considered competent will have been developed. Also, the examining panel will go through the scenarios to be used among themselves before meeting with the candidate(s) and agree on all the important / essential points. At least some of the scenarios will require the candidate to perform "live troubleshooting" of a problem. Scenarios will be drawn from a bank that contains several scenarios for each area of competency; scenarios will have been tested on 2 or 3 already certified Directors before being accepted for use. If the candidate "fails to get" one scenario then a reserve scenario will be used to give him/her a second chance.
7. **Pass Mark:** Each area of competency will have to be passed for a candidate to pass the examination. This is essential because it is not realistic to certify a Laboratory or Scientific Director as being competent to run a lab but with the exception of one or more areas of competency.

In the event that a candidate does not pass, then coaching / mentoring will be offered by one or more members of the examining panel and the candidate could apply for re-evaluation within 6 months. Under this condition the mentor(s) shall not form part of the re-examining panel.
8. **Eligibility to Apply for Certification – Individuals trained and working in Canada:**
 - a) **CFAS Membership:** If working in Canada the candidate must have been a CFAS ART Lab SIG member continuously for at least the last 5 years, and have maintained their CPD status [5] once certified as a Clinical Embryologist or Laboratory Andrologist.
 - b) **Training Programme:** As part of the application process a candidate must submit a written structure for a Training Programme that the (s)he will use in laboratories that (s)he will direct.
 - c) **If previously grandfathered as a Clinical Embryologist:** a candidate must have a total of 5 years full-time equivalent (FTE) experience working in that role in a Canadian ART Lab *after completing his/her training* by a CFAS-certified ART Laboratory or Scientific Director in everything except ICSI, or at least 4 FTE years after completion of ICSI training. Because the CFAS certification scheme for Clinical Embryologists and Laboratory Andrologists focusses on competencies it will not be possible to assume equivalence of work experience elsewhere.
 - d) **If previously grandfathered as a Laboratory Andrologist:** a candidate must have at least 4 FTE years experience working as a Laboratory Andrologist in a Canadian Andrology Lab *after completing his/her training* by a CFAS-certified Andrology Laboratory or Scientific Director.

Because the CFAS certification scheme for Clinical Embryologists and Laboratory Andrologists focusses on competencies it will not be possible to assume equivalence of work experience elsewhere.

- e) ***If not previously grandfathered as a Clinical Embryologist by the CFAS:*** a candidate must have a total of 5 FTE years experience working in that role in a Canadian ART Lab under a CFAS-certified ART Laboratory or Scientific Director *and have passed the Clinical Embryologist Certification Examination**. Because the CFAS certification scheme for Clinical Embryologists focusses on competencies it will not be possible to assume equivalence of work experience elsewhere.

**Note:* The clock can be considered to have started when the candidate was *signed-off by their Lab/Sci Director at the end of their training* so long as employment in the role was continuous thereafter in a Canadian laboratory.

- f) ***If not previously grandfathered as a Laboratory Andrologist by the CFAS:*** a candidate must have a total of 4 FTE years experience working in that role in a Canadian Andrology Lab under a CFAS-certified ART Laboratory or Scientific Director *after having passed the Laboratory Andrologist Certification Examination**. Because the CFAS certification scheme for and Laboratory Andrologists focusses on competencies it will not be possible to assume equivalence of work experience elsewhere.

**Note:* The clock can be considered to have started when the candidate was *signed-off by their Lab/Sci Director at the end of their training* so long as employment in the role was continuous thereafter in a Canadian laboratory.

9. Eligibility to Apply for Certification – Individuals moving to Canada:

- a) If a candidate was trained outside Canada then it will be up to the ART Lab SIG Executive (or a standing SIG subcommittee) to evaluate the equivalence of the candidate's training or certification (e.g. from ESHRE) and to determine the number of FTE years equivalent experience the candidate has in the particular role for which CFAS certification is being sought.
- b) A candidate will also need to demonstrate his/her competencies by passing the CFAS Clinical Embryologist / Laboratory Andrologist Certification Examination BEFORE applying for certification as a Laboratory or Scientific Director.

10. Eligibility to Apply for Certification – For individuals working in Canada but not trained by a CFAS-Certified Scientific or Laboratory Director:

- a) If a candidate was trained, or has subsequently worked, in a Canadian laboratory that does not have a CFAS-Certified ART Laboratory or Scientific Director then the ART Lab SIG Executive (or a standing SIG subcommittee) will need to review the quality, and FTE years equivalence, of the candidate's training.
- b) The candidate will need to demonstrate his/her competencies by passing the CFAS Clinical Embryologist / Laboratory Andrologist Certification Examination BEFORE applying for certification as a Laboratory or Scientific Director.

11. Additional Criteria for Scientific Director Candidates:

- a) A candidate must hold an earned PhD in a biomedical science from a recognized academic institution that is able to be judged for Canadian equivalence. Adequate evidence of the degree will be required.
- b) To establish the adequacy of his/her laboratory research training, a candidate must have published at least 3 papers as first or senior author in peer-reviewed journals with Impact Factors ≥ 1.50 . Reviews of any type, or any publications in "predatory" or "vanity" journals, will not count.

12. Equivalence of Overseas / USA Certifications: The CFAS certification schemes for Clinical Embryologists and Laboratory Andrologists and for Scientific and Laboratory Directors of ART / Andrology Labs

focuses on competencies not simplistic task repetitions, therefore it is not possible to assume equivalence of certifications earned elsewhere. Moreover, because non-Canadian organizations (e.g. AAB CRB or ESHRE) do not recognize CFAS certifications there is no reason why unilateral equivalence by the CFAS should be even considered.

- 13. Holding of Certification Examinations:** These will be run immediately preceding the CFAS Annual Meeting. For the first batch of candidates the examinations could be held as a series of special events in Montreal, Toronto and Vancouver.
- 14. Examination Fees:** The Examination Fee will need to cover the cost of the Panel being available for the extra day at the CFAS Annual Meeting. CFAS will cover the examiners' accommodation, meals and local travel expenses for the additional time that an examiner needs to arrive early before or leave later after a CFAS Annual Meeting. Perhaps if a candidate needs to be certified on a "rush" basis (e.g. prior to an accreditation survey or a College licensing inspection) then a special examination event could be organized in the city where the candidate lives, but with the extra travel costs having to be borne by the candidate's employer.

References

- [1] Certification programme for assisted reproductive technology laboratory professionals in Canada. *Reviewed and updated August 2016, requires further updating to align with the Certification Examination.*
- [2] Guidelines for qualifications and responsibilities for each assisted reproductive technology (ART) laboratory professional position in Canada. *Revised March 2018, requires further revision to include Andrology Lab Director position.*
- [3] Competency profiles for assisted reproductive technology laboratory professionals in Canada. CFAS website.
- [4] Alpha Scientists in Reproductive Medicine (2015) The Alpha Consensus Meeting on the professional status of the clinical embryologist: proceedings of an expert meeting. *Reprod Biomed Online* 30:451-461.
- [5] Guidelines for Maintenance of Certification for ART Lab Professionals through Continuing Professional Development (CPD). *Requires revision to align with ref 1.*

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