

International Regulatory Frameworks for Cell and Gene Therapies

Introduction

Cell and gene therapy products are rapidly entering the global market. These products pose unique regulatory challenges for product developers with respect to meeting regulatory requirements for many regions. In this document the IPRP Cell Therapy and Gene Therapy Working Groups present regulatory frameworks that apply to cell therapies, cell and tissue-based therapies, gene therapies, and tissue engineered products. To assist product developers in accessing global regulatory requirements for cell and gene therapies. This document will be revised as regulatory frameworks evolve. The information contained here is current as of July 2025.

Disclaimer

This document reflects the views of subject matter experts participating in the IPRP Cell Therapy and Gene Therapy Working Group and should not be construed to represent the official views of any given regulatory authority participating in the IPRP.



| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|---|--|--|---|
| Argentina National Administration of Drugs, Food, and Medical Technology (ANMAT, Argentina) | Disposition 179/2018: Advanced Therapy Medicines - Requirements, Demands and Classification. | This law, Provision 179/2018 of the Presidency of the Nation in Argentina, establishes regulations regarding the production, registration, authorization, and surveillance of advanced therapy medicines. It defines advanced therapy medications, somatic cell therapy medications, somatic cell therapy medications, and tissue engineering products. The law outlines specific technical requirements and demands for the production and registration of these medicines, including quality, preclinical, and clinical aspects to demonstrate their safety and efficacy. It also addresses issues such as donation of human cells or tissues, clinical research studies, manufacturing practices, labeling requirements, and risk | Disposición 179/2018 Argentina.gob.ar |



| | management plans. The law emphasizes the importance of traceability systems to monitor the safety of these medicines and outlines penalties for noncompliance. | |
|---|--|--|
| Official communication: | This Appendix lists other existing laws and guidances that will also come into | https://www.boletinoficial.gob.ar/detalleAviso/primera/223014/20191205 |
| Reference Guides for Advanced Therapy Medicines | force in Argentina following the notice's publication. | |

| Country | Law/Regulation | Details | Weblinks |
|----------------------|-----------------------|-------------------------------|---|
| Regulatory Authority | | | |
| Australia | Therapeutic Goods Act | Biologics- cell and gene- | Legislation and legislative instruments Therapeutic Goods |
| Therapeutic Goods | Therapeutic Goods | modified cells | Administration (TGA) |
| Administration (TGA, | Regulations | | |
| Australia) | Standards for Human | Donor screening Therapeutic | https://ichportal.sharepoint.com/sites/IPRPCGTWG/Shared |
| | Cell and Tissue | Goods Order (TGO 108) | Documents/5_Projects/Biological |
| | Products | | Standardshttps://www.tga.gov.au/resources/guidance/understanding- |
| | | | donor-screening-rules-human-cell-or-tissue-products |
| | | | |
| | Unapproved Supply | Patient access pathway for | https://www.tga.gov.au/products/unapproved-therapeutic- |
| | Pathways | drugs that have not been | goods/supply-unapproved-therapeutic-good-sponsors |
| | | included in the Australian | |
| | | Register of Therapeutic Goods | |
| | | (ARTG) | |



| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|---|---|---|---|
| Brazil Agência Nacional de Vigilância Sanitária (ANVISA, Brazil) | RDC 836/2023 - Good Cell Practices | Requirements for Good Cell Practices | https://anvisalegis.datalegis.net/action/ UrlPublicasAction.php?acao=abrirAtoPu blico#_ato=00000836&sgl_tipo=RD C&sgl_orgao=RDC/DC/ANVISA/MS&vlr_ ano=2023&seq_ato=000&cod_modulo= 134&cod_menu=1696 |
| | RDC 506/2021 – Clinical Trials with ATMP | Requirements for conducting clinical trials with investigational ATMP | https://anvisalegis.datalegis.net/action/ UrlPublicasAction.php?acao=abrirAtoPu blico# ato=00000506&sgl_tipo=RD C&sgl_orgao=RDC/DC/ANVISA/MS&vlr_ ano=2021&seq_ato=000&cod_modulo= 134&cod_menu=1696 |
| | RDC 505/2021 – Marketing authorization for ATMP | Requirements for ATMP marketing authorization | https://anvisalegis.datalegis.net/action/ UrlPublicasAction.php?acao=abrirAtoPu blico#_ato=00000505&sgl_tipo=RD C&sgl_orgao=RDC/DC/ANVISA/MS&vlr_ano=2021&seq_ato=000&cod_modulo= 134&cod_menu=1696 |



| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|--|--|--|--|
| Canada Health Canada (Health Canada, Canada) | Food and Drugs Act R.S.C., 1985, C. F-27 | General requirements for therapeutic products including cell and gene therapies. There are three sets of regulations under the Act relevant to cell and gene therapies: (1) the Food and Drug Regulations (2) the Safety of Human Cells, Tissues and Organs for Transplantation Regulations (3) the Medical Device Regulations | https://laws- lois.justice.gc.ca/eng/acts/f-27/ |
| | | Legislative provisions introduced in 2019 created a new framework to authorize Advanced Therapeutic Products (ATPs). ATPs are drugs or devices, or any combination of drugs and devices, that our current regulations were not designed to handle because they're so complex or distinct. This framework allows Health Canada to customize regulatory requirements for these products. | |
| | (1) Food and Drug Regulations C.R.C., c. 870 (2) Safety of Cells, Tissues and Organs for Transplantation Regulations (CTO Regulations) | Requirements for clinical investigation and authorization of drugs. The CTO Regulations apply to all individuals and establishments that handle, process, distribute or import human organs, or minimally manipulated cells and tissues for homologous use, for transplantation in another individual in Canada. | https://laws.justice.gc.ca/eng/regulations/C.R.C., c. 870/index.html https://laws-lois.justice.gc.ca/eng/regulations/sor-2007-118/index.html |
| | (3) Medical Devices Regulations (MDR) | These regulations are relevant as novel processing/manufacturing technologies are increasingly being used to process cells and to manufacture gene and cell therapy products close to the bedside by physicians. Some of these | https://laws- lois.justice.gc.ca/eng/regulations/sor- 98-282/ |



| | manufacturing technologies have been classified | |
|--|---|--|
| | as devices. In addition, some cell and tissue-based | |
| | products may be classified as drug-device | |
| | combination products or fall at the drug-medical | |
| | device interface. | |

| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|---------------------------------|----------------|--------------------------|----------|
| Chile – Public Health | | Left Blank Intentionally | |
| Institute Chili (ISPCH, | | Left Blank intentionally | |
| Chile) | | | |

| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|--|---------------------------------|--|---|
| Chinese Taipei - | Regenerative Medicine Act | Define Regenerative Medicine, including | Regenerative Medicine Act |
| Taiwan Food and Drug | | Regenerative medicinal products and | |
| Administration (TFDA, | | Regenerative medicine techniques. Also include | |
| Chinese Taipei) | | the establishment of Review Board, policy | |
| | | development, ensuring patient rights and medical | |
| | | ethics, and regulation of cell banks. | |
| Regenerative Medicinal | | Define categories of regenerative products and | Regenerative Medicinal Products Act |
| Products Act | | the requirement for approval and post approval | |
| ma | | managements. Allowing conditional approval for | |
| | | certain products. | |
| Regulation Governing the Includes the regulation for | | Includes the regulation for | Regulation Governing the Application of |
| | Application of Specific Medical | | Specific Medical Examination Technique |
| | | | and Medical Device (Chinese version only) |



| Examination Technique and | conducting listed cell therapies at authorized | |
|---------------------------|--|--|
| Medical Device | medical institutes (Chapter 2 Section 1, and Table | |
| | 3; Chinese version only). | |

| Country | Law/Regulation | Details | Weblinks |
|-----------------------------|-------------------------|---|---------------------------------------|
| Regulatory Authority | | | |
| Egypt - Egyptian Drug | Decree No. (343)/2021pt | Rules and procedures for registering biological | https://www.ela.law/firms/ibrachy- |
| Authority (EDA, Egypt) | | products, serums, vaccines and blood products; | dermarkar/articles/the-egyptian-drug- |
| | | this was published in the Official Gazette No. (168 | authority-eda-has-issued-decree-no- |
| | | Annex/ 2021) | <u>343-2021pt</u> |

| Country | Law/Regulation | Details | Weblinks |
|-----------------------------|--------------------------|---|---|
| Regulatory Authority | | | |
| European Commission- | Regulation 1394/2007 on | 'Lex specialis' (only describing what is specific for | https://eur- |
| European Union | ATMPs | ATMP) | lex.europa.eu/eli/reg/2007/1394/oj/eng |
| European Medicines | Directive 2001/83/EC | Main pharmaceutical legislation | https://eur- |
| Agency (EMA/EC, | | | lex.europa.eu/eli/dir/2001/83/oj/eng |
| Europe) | Regulation (EC) 726/2004 | Regulation on the centralized evaluation | https://health.ec.europa.eu/system/files |
| | | procedure and EMA | /2016-11/reg_2004_726_en_0.pdf |
| | Directive 2009/120/EC | Scientific and technical requirements for ATMPs | https://eur- |
| | | (dossier requirements) | lex.europa.eu/LexUriServ/LexUriServ.do? |
| | | | <u>uri=OJ:L:2009:242:0003:0012:EN:PDF</u> |





| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|---|---|---|--|
| Israel - Enforcement and Pharmaceutical Division, Ministry of Health (CPED, Israel) | Public Health Regulations (clinical trials in human subjects) (1980) Pharmacists Ordinance | General provision, includes definitions of clinical trials, dedicated committees (including superior committee responsible for genetic issues) General provision, includes | https://www.ema.europa.eu/en/human-regulatory- overview/research-development/clinical-trials-human- medicines/clinical-trials- regulationhttps://www.health.gov.il/LegislationLibrary/Briut18.pdf https://www.health.gov.il/legislationlibrary/rokhut23.pdf |
| | [New Version], 1981 The Pharmacists Regulations (Medicinal products) 1986 | definition of medicinal product to include Advanced Therapies General provision, for licensing, registering and renewal of medicinal products Marketing Authorizations | https://www.health.gov.il/LegislationLibrary/Rokhut04.pdf |
| | Pharmacist Regulations (Good Manufacturing Practice for Medicinal Products) 2008 | General provision, GMP regulation (in accordance with EU GMP legislation) | https://www.health.gov.il/LegislationLibrary/Rokhut27.pdf |
| | Cord Blood -Law and Regulation (2012) | For control and licensing of public and private Cord Blood Banks | https://www.health.gov.il/LegislationLibrary/Dam01.pdf https://www.health.gov.il/LegislationLibrary/Dam01.pdf https://ichportal.sharepoint.com/sites/IPRPCGTWG/Shared Documents/5_Projects/Cord Blood (02) |
| | Notice on the approval of general director according to pharmacist regulation (2016) | For use of Unlicensed medicines, to include Hospital Exemption | https://www.health.gov.il/LegislationLibrary/Rokhut31.pdf |

| Country | Law/Regulation | Details | Weblinks |
|---------|----------------|---------|----------|
| | | | |



| Regulatory Authority | | | |
|------------------------|------------------------------|---|--|
| Japan | Act on Securing Quality, | Defines" Regenerative Medical Products" and | PMDA Quality, Efficacy, and Safety |
| Ministry of Health, | Efficacy and Safety of | allows "conditional and time-limited" approval | |
| Labor and | Products Including | for some of the products. | |
| Welfare/Pharmaceutical | Pharmaceuticals and | | |
| Medical Devices Agency | Medical Devices | | |
| (MHLW/PMDA, Japan) | (Pharmaceuticals and | | |
| | Medical Device Act) | | |
| | Law concerning the | Regulates manufacture and use of gene- | Cartagena Protocol, Domestic |
| | Conservation and | modified organisms (before marketing | |
| | Sustainable Use of | authorization). | |
| | Biological Diversity through | | |
| | Regulations on the Use of | | |
| | Living Modified Organisms | | |
| | (Cartagena Protocol | | |
| | Domestic Law, Cartagena | | |
| | Law) | | |
| | Act on the Safety of | Regulates regenerative medicine and cell | <u>Safety - Products not intended to be</u> |
| | Regenerative Medicine | therapy in medical practice and CPCs outside of | <u>marketed</u> |
| | (regulated by MHLW, and | PMD Act (i.e. without intention of product | Tobita, et al. Regenerative Therapy. 4 |
| | PMDA's role is limited to | registration for marketing). | (2016) 78e81 |
| | inspection of the structure | | (https://doi.org/10.1016/j.reth.2016.04.001) |
| | and equipment of contract | | |
| | CPC facilities) | | |
| | Standards for Biological | | Standards for Biological Raw Materials |
| | Raw Materials (Ministerial | | |
| | Ordinance to supplement | | |
| | PMD Act) | | |

| Country | Law/Regulation | Details | Weblinks |
|------------|----------------|---------|----------|
| Regulatory | | | |
| Authority | | | |



| Malaysia - | Sale of Drugs Act | As Cell and Gene Therapy | https://pharmacy.moh.gov.my/en/documents/sale-drugs-act-1952-and- |
|---------------|--------------------|-----------------------------------|--|
| - | _ | | |
| National | 1952: Control of | Products (CGTPs) are presented | regulations.html |
| Pharmaceutic | Drugs and | as having properties for medical | https://pharmacy.moh.gov.my/sites/default/files/document-upload/control- |
| al Regulatory | Cosmetic | purposes – treating or | drugs-and-cosmetics-regulation-1984.pdf |
| Agency | Regulations | preventing diseases in human | |
| (NPRA, | (CDCR) 1984 | beings, or that they may be | |
| Malaysia) | | used in or administered to | |
| | Peraturan- | human beings with a view of | |
| | Peraturan | restoring, correcting, or | |
| | Kawalan Dadah & | modifying physiological | |
| | Dadah & | functions by exerting principally | |
| | Kosmetik 1984 | pharmacological, | |
| | | immunological, or metabolic | |
| | | action, they are classified as | |
| | | medicinal products. CGTPs fit | |
| | | within the meaning of | |
| | | medicinal products under the | |
| | | Sale of Drugs Act 1952: Control | |
| | | of Drugs and Cosmetic | |
| | | Regulations 1984 [P.U.(A) | |
| | | , | |
| | | 223/84]. And in accordance to | |
| | | the statutory provisions CGTPs | |
| | | would be classified as biological | |
| | | products. | |
| | Direktif | Directive regarding expanding | https://www.npra.gov.my/index.php/en/directive-general/1527703-direktif- |
| | Berkenaan | the IP scope of First-In-Human | berkenaan-peluasan-skop-produk-kajian-klinikal-first-in-human-fih-untuk- |
| | Peluasan Skop | Clinical Trials to Cell & Gene | permohonan-lesen-import-percubaan-klinikal-ctil-dan-kebenaran-untuk- |
| | Produk Kajian | Therapy Products (CGTP) | |
| | Klinikal First-In- | (effective 1 April 2025). | mengilang-produk-tidak-berdaftar-untuk-tujuan-percubaan-klinikal-ctx-kepada- |
| | Human (FIH) | | <u>cell-and-gene-therapy-product-cgtp.html</u> |
| | Untuk | | |
| | Permohonan | | |
| | Lesen Import | | |
| | | ı | |



| Percubaan Klinikal (CTIL) dan Kebenaran Untuk Mengilang Produk Tidak Berdaftar Untuk Tujuan Percubaan Klinikal (CTX) kepada Cell and Gene Therapy Product (CGTP) Surat Pekeliling Ketua Pengarah Kesihatan Malaysia Bil. 4/2015. KKM87/P1/26/10 jld.18 (41). Tatacara Prosedur Permohonan Berkaitan Penyelidikan Sel Stem dan Cell- | Circular Letter of the Director General of Health Malaysia No. 4/2015.KKM87/P1/26/10vol.18(41) detailing about the procedures related to stem cell research and cell-based therapies. | https://clinicalresearch.my/wp-content/uploads/2020/11/Surat-Pekeliling-KPK-Bil.4-2015.pdf |
|---|--|--|
| Based Therapies. Guidance document issued by the Director of Pharmaceutical | Regulatory framework and registration requirements of CGTPs | https://www.npra.gov.my/index.php/en/component/sppagebuilder/925-drug-registration-guidance-document-drgd.html https://www.npra.gov.my/easyarticles/images/users/1153/drgd_appendices/AP |
| Services under Regulation 29, CDCR 1984: • Drug Registrati | | PENDIX-4-Guideline-on-Registration-of-Biologics.pdf https://www.npra.gov.my/easyarticles/images/users/1051/CGTP_guidelinesbio.pdf |



| on | |
|------------|--|
| Guidance | |
| Documen | |
| t (DRGD), | |
| 3rd | |
| Edition, | |
| Ninth | |
| Revision | |
| January | |
| 2025 | |
| | |
| - | |
| Appendix | |
| 4: | |
| Guideline | |
| on | |
| Registrati | |
| on of | |
| Biologics | |
| | |
| Guidance | |
| Documen | |
| t and | |
| Guideline | |
| s for | |
| Registrati | |
| on of Cell | |
| and Gene | |
| Therapy | |
| Products | |
| (CGTPs) in | |
| Malaysia | |
| | |
| • | |



| by the D | Import Licence/Clinical Trial Exemption (CTIL/CTX) for the purpose of conducting clinical trials, involving various produc categories including CGTPs | https://www.npra.gov.my/index.php/en/biologics-main-page.html |
|--|---|---|
| Guid Appl Clini Impo Lice Clini Exer | aysian deline for lication of cal Trial ort nse and cal Trial mption, h Edition | |

| Country | Law/Regulation | Details | Weblinks |
|--|--|---|--|
| Regulatory Authority | | | |
| Mexico Comision Federal Para La Proteccion Contra Riesgos Sanitarios (COFEPRIS, Mexico) | General Health Law, Title fourteenth (All title) Main regulation: Art. 314 Definitions Art. 315 Establishment that require license to operate | For quality specifications and review procedures for drug substance, drug product and excipients, COFEPRIS can use information from Pharmacopeia from other | https://www.olivares.mx/product-regulation-and-liability-in-mexico/http://www.diputados.gob.mx/LeyesBiblio/pdf_mov/Ley_General_de_Salud.pdf Note: The General Health Law and Regulation for Health products are undergoing many changes during this administration. |



| Art.316 Bis 1: Blood and components | countries (Regulation for Health products, article 8). | Sometimes the updates are only available in the Official Journal of the Federation: |
|---|---|--|
| Art. 318: Embryo and germ cells 321 bis: stem cell donation CHAPTER III BIS Disposition of blood, blood components, human blood products and stem cells. Art. 342 Bis 3. National registry for Blood Stem cells | COFEPRIS can wield the sanitary control for health products under the terms of the Law, the international instruments and other applicable provisions (Regulation for the Federal Commission for protection against sanitary risk). | https://www.dof.gob.mx/ COFEPRIS website also provides a specific link for the legal framework: https://www.gob.mx/cofepris/acciones-y-programas/marco-juridico-de-la-cofepris?state=published This link is an unofficial website, COFEPRIS is not responsible for the content: |
| | | https://www.olivares.mx/product-regulation-and-liability-in- mexico/ |
| Regulation for Health | General requirements for | COFEPRIS website also provides an specific link for the legal |
| Products | the marketing | framework: https://www.gob.mx/cofepris/acciones-y- |
| Chapter III Registry | authorization for medicinal products | programas/marco-juridico-de-la-cofepris?state=published |
| | For quality specifications and review procedures for drug substance, drug product and excipients, COFEPRIS can use information from Pharmacopeia from other | |



| | countries (Regulation for Health products, article 8). COFEPRIS can wield the sanitary control for health products under the terms of the Law, the international instruments and other applicable provisions (Regulation for the Federal Commission for protection against | |
|---|---|---|
| | for protection against sanitary risk). | |
| Official Mexican Standard NOM-059-SSA1-2015, Good manufacturing practices for medicinal products | GMP for medicinal products | https://mexicanlaws.com/SALUD/NOM-059-SSA1-2015.htm |

| Country | Law/Regulation | Details | Weblinks |
|-----------------------------|----------------------------|--|--|
| Regulatory Authority | | | |
| Republic of Korea | Pharmaceutical Affairs Act | To prescribe matters necessary to deal with | http://law.go.kr/LSW/eng/engMain.do |
| Ministry of Food and | | pharmaceutical affairs | |
| Drug Safety (MFDS, | Act on the Safety of and | To prepare concrete procedure and details for | http://law.go.kr (English version is not yet |
| Republic of Korea) | Support for Advanced | the implementation of whole life-cycle safety | available.) |
| | Regenerative Medicine and | management for advanced biopharmaceuticals | |
| | Advanced | and clinical research on advanced regenerative | |
| | Biopharmaceuticals | medicine | |



| Enforcement Decree of the | To prescribe the matters mandated by the | http://law.go.kr/LSW/eng/engMain.do |
|--------------------------------|---|--|
| Safety of and Support for | safety of and support for advanced regenerative | http://law.go.kr (English version is not yet |
| Advanced Regenerative | medicine and advanced biopharmaceuticals Act | available.) |
| Medicine and Advanced | and those necessary for enforcing said Act | |
| Biopharmaceuticals | affairs. | |
| Regulation on the Safety of | To prescribe matters delegated by the safety of | http://law.go.kr (English version is not yet |
| and Support for Advanced | and support for advanced biopharmaceuticals | available.) |
| Biopharmaceuticals | Act and the Enforcement Decree of the safety of | |
| | and support for advanced biopharmaceuticals | |
| | Act and matters necessary for their | |
| | enforcement. | |
| Regulation on Approval and | For improvement the efficiency of review and | http://law.go.kr (English version is not yet |
| Review of Advanced | approval processes and promote the advanced | available.) |
| Biopharmaceuticals | biopharmaceutical products that have been | |
| | developed using new technologies. | |
| Enforcement Decree on the | To prescribe requirements for facilities of | http://www.mfds.go.kr (Language: English |
| Standards of Facilities of | manufacturers and importers of medicinal | version) |
| Manufacturers and | products etc. | Bio&Cosmetics → Regulation → Find #15 |
| Importers of Medicinal | | bloacesmetics a regulation at maints |
| Products etc. | | |
| Enforcement Regulation of | To prescribe requirements and procedures | http://www.mfds.go.kr (Language: English |
| the Enforcement Decree on | delegated by the Enforcement Decree on | version) |
| the Standards of Facilities of | Standards of Facilities of Manufacturers and | Bio&Cosmetics → Regulation → Find #16 |
| Manufacturers and | Importers of Medicinal Products, etc. | bloacesmetics a regulation at mainte |
| Importers of Medicinal | | |
| Products etc. | | |
| Regulation on Safety of | To prescribe matters delegated by the | http://www.mfds.go.kr (Language: English |
| Medicinal Products, etc. | Pharmaceutical Affairs Act and the Enforcement | version) |
| | Decree of the Pharmaceutical Affairs Act and | Bio&Cosmetics → Regulation → Find #14 |
| | matters necessary for their enforcement. | Blockedsineties - Negalation - Fina #14 |
| Regulation on | To assure appropriate Pharmaceutical GMP by | http://www.mfds.go.kr (Language: English |
| Pharmaceutical GMP | specifying detailed requirements for | version) |
| | enforcement of Regulation on Safety of | , |
| l | | |



| | Medicinal Products, etc., and detailed requirements for expiry period of certificate of GMP compliance of a manufacturer for medicinal products under application for product approval. | Bio&Cosmetics → Regulation → Find #18 |
|--|--|---|
| Regulation on Approval for Investigational New Drug | To set force the detailed matters regarding the preparation tip, scope, requirement, and | http://www.mfds.go.kr (Language: English version) |
| Application of Drugs | exemption scope of data necessary for IND application, approval procedure, and standard, and to ensure that appropriate measures are used in conjunction with the Investigational new drug (IND) approval processes. | Bio&Cosmetics → Regulation → Find #22 |
| Regulation on Fees for Pharmaceutical Approval etc. | | http://www.mfds.go.kr (Language: English version) |
| | For improvement the efficiency of review and | Bio&Cosmetics → Regulation → Find #28 |
| Regulation on Approval and Review of Biological | approval processes and promote the biological | http://www.mfds.go.kr (Language: English version) |
| Products | products that have been developed using new technologies. | Bio&Cosmetics → Regulation → Find #32 |
| Korean Pharmacopeia | | https://www.mfds.go.kr/eng/brd/m_18/view .do?seq=71538 |

| | Country | Law/Regulation | Details | Weblinks |
|--|---------|----------------|---------|----------|
|--|---------|----------------|---------|----------|



| Regulatory Authority | | | |
|---|---|--|---|
| Saudi Food and Drug authority (SFDA) | Notification and documentation of proposed clinical trial /Submission of declaration that no enrichment or culturing is used during this procedure. | This regulation is applied for well established procedures. Clinical trial applications for Hematopoietic Progenitor Stem Cell (HPC) Transplantation, and Non-Myeloablative Conditioning and Transplantation of Partially HLA-Mismatched and HLA-Matched Bone Marrow followed this regulation. | www.sfda.gov.sa |
| | Notification and documentation of proposed clinical trial /Submission of procedural steps | This regulation is applied for clinical trial applications regarding aamniotic membrane harvested from placenta of healthy women delivered by elective cesarean section. | https://www.sfda.gov.sa/sites/default/files/2025-02/ConductingClinicalTrialsDrugE.pdf |
| | Requirements for Importation of Minimally Manipulated Biological Products Intended for Human Application | | https://www.sfda.gov.sa/en/forms/80910 |
| | SFDA Guideline on Classification of Advanced Therapy Medicinal Products | 06 November 2023 | <u>ClassificationAdvancedTherapyGV01.pdf</u> (sfda.gov.sa) |
| | Guidance on Submission of Chemistry, Manufacturing, and Control (CMC) Information for Cell-based Clinical Trial Applications | 04 April 2023 | CMC-cell-based-IND V01 1.pdf (sfda.gov.sa) |
| | Clinical Considerations for efficacy and safety assessment | 09 July 2023 | https://www.sfda.gov.sa/en/regulations/88546 |



| SFDA is working on draft Guidance on Submission of Chemistry, Manufacturing, and Control (CMC) Information for Gene therapy Clinical Trial Applications Good Manufacturing Practice for Blood Establishments Guide to Good Manufacturing Practice for Medicinal Products | Expected 2025 | https://www.sfda.gov.sa/sites/default/files/2024-01/DrugGMPBloodEstablishments-AR 0.pdf https://www.sfda.gov.sa/sites/default/files/2023-01/SFDA-GMP-Guideline%20 0.pdf - Annex 2A - Manufacture of Advanced Therapy medicinal for Human Use - Annex 14 manufacture of medicinal products derived from human blood or plasma |
|---|---------------|--|
| Requirements for Importation of Minimally Manipulated Biological Products Intended for Human Application Guidance for Combination | | https://www.sfda.gov.sa/en/regulations/65999 FINAL for implementation.pdf (sfda.gov.sa) |
| Products Classification Genome editing technologies | | Internal review guidance |

| Country Lawy Regulation Details Weblinks | Country | Law/Regulation | Details | Weblinks |
|--|---------|----------------|---------|----------|
|--|---------|----------------|---------|----------|



| Regulatory Authority | | | |
|---------------------------|-------------------------------|-----------------------------|--|
| Singapore | Health Products Act | The regulations cover both | https://www.hsa.gov.sg/ctgtphttps://www.hsa.gov.sg/ctgtp |
| Health Sciences Authority | | lower risk (minimally | |
| (HSA, Singapore) | Health Products (Cell, Tissue | manipulated for | |
| | and Gene Therapy Products) | homologous use that are | |
| | Regulations 2021 | not combined with | |
| | | therapeutic product or | |
| | | medical devices) and higher | |
| | | risk CTGTPs, from clinical | |
| | | trials, registration, | |
| | | manufacture, import, supply | |
| | | to post-market duties and | |
| | | obligations. | |

| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|---------------------------------|----------------|--------------------------|----------|
| South Africa – SAHPRA | | Left Blank Intentionally | |
| (SAHPRA, South Africa) | | | |

| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|------------------------------------|--------------------------|--|--|
| Switzerland | Federal Act on Medicinal | The purpose of this Act is to protect human and | https://www.fedlex.admin.ch/eli/cc/2001/422/en |
| Swissmedic | Products and Medical | animal health and to guarantee that only high | |
| (Swissmedic, | Devices (Therapeutic | quality, safe and effective therapeutic products | |
| Switzerland) | Products Act, TPA; SR | are placed on the market. Applicable to all | |
| | 812.21) | biologics including cell therapy, gene therapy, | |
| | | tissue engineered products. | |



| Ordinance on Licensing in the Medicinal Products Sector (Medicinal Products Licensing Ordinance, MPLO; SR 812.212.1) | This Ordinance regulates the manufacture and trading of medicinal products. Applicable to all biologics including cell therapy, gene therapy, tissue engineered products. | https://www.fedlex.admin.ch/eli/cc/2018/786/en |
|--|---|--|
| Verordnung über die Arzneimittel (Arzneimittelverordnung, VAM; SR 812.212.21) | This regulation governs, among other things, the approval of ready-to-use medicinal products and the approval of procedures. Applicable to all biologics including cell therapy, gene therapy, tissue engineered products. (DE, FR, IT languages only) | https://www.fedlex.admin.ch/eli/cc/2018/588/de |
| Verordnung des Schweizerischen Heilmittelinstituts über die Anforderungen an die Zulassung von Arzneimitteln (Arzneimittel- Zulassungsverordnung, AMZV; SR 812.212.22) | This regulation lays down the requirements for the marketing authorization of a ready-to-use medicinal product. Applicable to all biologics including cell therapy, gene therapy, tissue engineered products. (DE, FR, IT languages only) | https://www.fedlex.admin.ch/eli/cc/2001/517/de |
| Clinical Trials Ordinance (ClinO; SR 810.305) | Ordinance on Clinical Trials with the exception of Clinical Trials of Medical Devices | https://www.fedlex.admin.ch/eli/cc/2013/643/en |
| Transplantation Act (SR 810.21) | Federal Act on the Transplantation of Organs, Tissues and Cells. This Act sets out the requirements for the use of organs, tissues or cells for transplantation purposes. | https://www.fedlex.admin.ch/eli/cc/2007/279/en |
| Ordinance on the Transplantation of Human Organs, Tissues and Cells (Transplantationsverordnu ng; SR 810.211) | Verordnung über die Transplantation von menschlichen Organen, Geweben und Zellen. This ordinance regulates the handling of human organs, tissues and cells. | https://www.fedlex.admin.ch/eli/cc/2007/280/de |



| | (DE, FR, IT languages only) | |
|--|---|--|
| Ordinance on the Handling of Organisms in the Environment (Release Ordinance, RO; SR 814.911) | This Ordinance is intended to protect human beings, animals and the environment, as well as biological diversity and its sustainable use, from hazards or harm caused by handling organisms, their metabolic products and wastes. It also aims, during the handling of genetically modified organisms, their metabolic products and wastes, to guarantee consumers' freedom of choice and protect production that does not use genetically modified organisms. Applicable to biologics such as GMO and gene therapy products. | https://www.fedlex.admin.ch/eli/cc/2008/614/en |
| Ordinance of 9 May 2012 on Handling Organisms in Contained Systems (Containment Ordinance, ContainO; SR 814.912) | This Ordinance regulates the handling of organisms, in particular genetically modified, pathogenic or alien organisms, in contained systems. Applicable to all biologics such as GMO and gene therapy products. | https://www.fedlex.admin.ch/eli/cc/2012/329/en |

| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|---|---|---|---|
| Türkiye - Turkish Medicines and Medical Devices (TITCK, Türkiye) | Regulation on the Marketing Authorization of Advanced Therapy Products | Requirements for marketing authorization. | https://www.resmigazete.gov.tr/eskiler/2023/05/20230527-7.htm |
| | Regulation on the Quality and Safety of Human Tissues, Cells, and related Centers | Requirements for human tissues donations and procurement. | https://www.resmigazete.gov.tr/eskiler/2010/10/20101027-6.htm |



| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|---|--|---|---|
| United Kingdom – Medicines and Healthcare products Regulatory Agency (MHRA) | The Human Medicines Regulations 2012 | | The Human Medicines Regulations 2012 (legislation.gov.uk) |
| (WITHA) | The Human Medicines (Amendment etc.) (EU Exit) Regulations 2019 | Regulations governing ATMPs | The Human Medicines (Amendment etc.) (EU Exit) Regulations 2019 (legislation.gov.uk) |
| | The Medicines for Human Use (Clinical Trials) Regulations 2004 | | The Medicines for Human Use (Clinical Trials) Regulations 2004 (legislation.gov.uk) |
| | The Human Tissue (Quality and Safety for Human Application) Regulations 2007 | Regulations governing the collection of starting material | The Human Tissue (Quality and Safety for Human Application) Regulations 2007 (legislation.gov.uk) |
| | The Blood Safety and Quality Regulations 2005 | | The Blood Safety and Quality Regulations 2005 (legislation.gov.uk) |



| | The Medical Devices Regulations 2002 | Regulations governing combination products where the ATMPs includes an integrated medical device | The Medical Devices Regulations 2002 (legislation.gov.uk) |
|--|---|--|---|
| | Medicines and Medical Devices Act 2021 | | Medicines and Medical Devices Act 2021 (legislation.gov.uk) |
| | The Windsor Framework (Regulation of medicinal products in Northern Ireland) | Allowances are made to the EU Directives. From 2025 the Windsor Framework will take effect for medicines. | The Windsor Framework - further detail and publications - GOV.UK (www.gov.uk) |

| Country | Law/Regulation | Details | Weblinks |
|----------------------|--------------------|--|---|
| Regulatory Authority | | | |
| United States | 21 CFR 1271 Tissue | Tissue Rules intended to prevent the | https://www.ecfr.gov/current/title-21/chapter-l/subchapter- |
| Food and Drug | Regulations | spread of infectious disease (Donor | <u>L/part-1271</u> |
| Administration (US | | eligibility) | |
| FDA) | | Applicable to cell therapy, gene therapy, | |
| | | tissue engineered products | |
| | 21 CFR 600 -690 | Applicable to all biologics including cell | https://www.ecfr.gov/current/title-21/chapter-l/subchapter- |
| | Biological License | therapy, gene therapy, tissue engineered | <u>F/part-600</u> |
| | Applications (BLA) | products | |
| | Requirements | | |
| | | | |



| 21 CFR 312 Investigation New Drug (IND) Requirements | Applicable to all biologics including cell therapy, gene therapy, tissue engineered products | https://www.ecfr.gov/current/title-21/chapter-I/subchapter-D/part-312 |
|--|---|--|
| 21 CFR 210 Current Good Manufacturing Practice in Manufacturing, Processing, Packaging, or Holding of Drugs | Applicable to all biologics including cell therapy, gene therapy, tissue engineered products | https://www.ecfr.gov/current/title-21/chapter-l/subchapter- C/part-210 |
| 21 CFR 211 Current Good Manufacturing Practices for finished pharmaceuticals | Applicable to all biologics including cell therapy, gene therapy, tissue engineered products | https://www.ecfr.gov/current/title-21/chapter-l/subchapter- C/part-211 |
| 21 CFR 314.126 Clinical Trial Standards 21 CFR 812 Investigational Device Exemption (IDE) Requirements | Applicable to all biologics including cell therapy, gene therapy, tissue engineered products Applicable to devices | https://www.ecfr.gov/current/title-21/chapter-l/subchapter-D/part-314/subpart-D/section-314.126 https://www.ecfr.gov/current/title-21/chapter-l/subchapter-H/part-812 |
| 21 CFR 814 Pre- market approval (PMA)/Humanitaria n Device Exemption (HDE) Regulations | Applicable to devices | https://www.ecfr.gov/current/title-21/chapter-l/subchapter- H/part-814 |



| 21 CFR 820 Quality | Applicable to devices | https://www.ecfr.gov/current/title-21/chapter-l/subchapter- |
|--------------------|-----------------------|---|
| Systems | | H/part-820 |
| Regulation/Good | | |
| Manufacturing | | |
| Practices | | |
| 21 CFR 807(e) | Applicable to devices | https://www.ecfr.gov/current/title-21/chapter-l/subchapter- |
| Premarket | | H/part-807/subpart-E |
| Notification | | |
| Procedures | | |

| Country Regulatory Authority | Law/Regulation | Details | Weblinks |
|---------------------------------|----------------|--------------------------|----------|
| Uzbekistan – Center | | Left Blank Intentionally | |
| for Pharmaceutical | | | |
| Product Safety (CPPS, | | | |
| Uzbekistan) | | | |