



Code of Ethics and Business Conduct



MESSAGE FROM THE CEO

At Ionis, we dream big and are committed to bringing life-changing medicines to patients with unmet medical needs. With that goal comes a responsibility to behave ethically and conduct ourselves with integrity.

Doing the right thing is not always easy. But we owe it to all stakeholders, especially patients, to make good decisions in a responsible manner. The Ionis Code of Ethics and Business Conduct (the “Code of Ethics”) is designed to help us achieve this objective. It describes the fundamental principles that guide us in all aspects of our business.

Of course, no code of conduct can cover all circumstances or anticipate every situation. For that reason, when faced with situations not addressed specifically by this Code of Ethics, we should apply our underlying principles and overall philosophy embedded within the Code of Ethics to the situation. We each have a responsibility to approach every situation ethically and with integrity.

Thank you for your commitment to uphold the standards, principles and philosophy of this Code of Ethics. Together, we are a force for life.



Brett P. Monia, Ph.D.
Chief Executive Officer



TABLE OF CONTENTS

I. Introduction	3
A. Purpose.....	3
B. Scope.....	3
C. Compliance with Laws and Regulations.....	3
D. Our Responsibilities	3
II. Putting Patients First	4
A. Research and Development.....	4
B. Product Quality and Safety.....	4
C. Protecting Patient Privacy.....	4
D. Commercializing Medicines	4
III. Interacting with Healthcare Professionals and Promoting Products	5
A. Interactions with Healthcare Professionals (HCPs)	5
B. Product Promotion.....	5
IV. Conducting Business Ethically	6
A. Interactions with Competitors.....	6
B. Anti-Bribery & Anti-Corruption	6
C. Books, Records, and Information Management	6
D. Conflicts of Interest	7
E. Dishonesty & Theft.....	8
F. Disclosures and Insider Trading.....	8
G. Protecting Intellectual Property & Confidential Information	8
V. Reporting, Resources, & Questions	9
A. Reporting a Violation & Ionis Helpline	9
B. Investigating a Violation	9
C. Non-Retaliation Policy	9
D. Consequences for Violating this Code of Ethics	9
E. Contact Information for Questions	9

I. Introduction

A. Purpose

This Code of Ethics is intended to help us act with integrity in our business, wherever we are and in whatever we do.

In addition to the Code of Ethics, we also rely on policies and procedures to provide more specific guidance on the subject matter in question. If you have any questions about how to apply this Code of Ethics or related Company policies, please contact any member of management, Legal, Compliance, or Human Resources.

B. Scope

This Code of Ethics applies to all Ionis employees whether full-time, part-time or temporary, including our executive officers, and each member of the Ionis Board of Directors. This Code of Ethics also applies to all employees of Ionis' subsidiaries and affiliates world-wide. References to Ionis and "the Company" are references to Ionis and its subsidiaries and affiliates.

Any waiver of this Code of Ethics for executive officers or members of the Board of Directors must be approved by the Board of Directors and must be promptly disclosed to the Company's stockholders, including the reasons for the waiver.

C. Compliance with Laws and Regulations

As a company based in the U.S., Ionis is governed by and required to comply with U.S. federal law. In addition to complying with federal law, we conduct our activities in compliance with all applicable national, state, and local laws, regulations, and judicial decrees wherever we conduct business.

When conducting business for Ionis, we strive to comply with the spirit of the law, and we will not take any action that we know, or reasonably should know, violates any law, regulation or judicial decree.

D. Our Responsibilities

As representatives of Ionis, we all have responsibilities to uphold this Code of Ethics, and those responsibilities include:

- Know and comply with the Code of Ethics and Company policies that apply to business activities.
- Be honest, fair, and trustworthy in all business activities and relationships.
- Provide and support a culture that values integrity and ethical conduct.
- Avoid conflicts of interest between work and personal affairs.
- Report suspected violations of law, the Code of Ethics, or Company policies.
- Cooperate in any investigation into possible violations of law, the Code of Ethics, or Company policies.

Managers' Responsibilities

In addition to the above responsibilities, managers at the Company have the following responsibilities with respect to their teams:

- To be fair and maintain a level playing field for all.
- To be honest and transparent, having frequent, high integrity communications, sharing both good news and bad.
- To trust others with the truth and to do the right thing.
- To lead by setting clear objectives and high standards, providing support, giving frequent feedback, being a mentor, and responding fairly, timely and equitably to issues as they arise.

II. Putting Patients First

At Ionis, our efforts begin and end with the patient in mind; we know there are sick people who depend on us and we strive to understand their journey and meet their needs. To appropriately serve patients, we prioritize research and development, product quality and safety, protection of privacy and appropriately commercializing medicines.

A. **Research and Development**

Science is built upon a foundation of trust and integrity. We conduct research and the pursuit of new and novel therapeutics with the highest degree of integrity. Participants of clinical research put their trust in us, and they play a vital role in the advancement of science. For that reason, we must always appropriately protect the health, safety, and privacy of all clinical research participants. As members of the scientific community, we respect and adhere to applicable laws, regulations, and industry standards regarding ethical conduct in research. We share the findings of our research in a transparent and accurate manner, regardless of the outcome, so as to further science and move closer to improving the lives of patients.

B. **Product Quality and Safety**

The quality and safety of our products is of the utmost importance. Our commitment to product quality and safety is another way in which we meet the needs of those patients who depend on us. We are committed to monitoring our products at all phases and reporting any quality and safety information as required by applicable laws and regulations. At Ionis, we have a policy and procedure for adverse event reporting and each of us is obligated to report any adverse events promptly after learning about the event.

C. **Protecting Patient Privacy**

Patient information is highly sensitive and protected under international, federal, and state laws. We have an obligation under the law to appropriately protect patient information, but we also have a deep sense of commitment to patients who entrust us with their private information. We must always handle such information with the appropriate safeguards in place and will not collect, store, transfer, or share any patient information unless we have the express authorization or right to do so.

D. **Commercializing Medicines**

We seek to bring our medicines to the market to fulfill unmet patient needs. We will commercialize our medicines consistent with the principles set forth in section III below.

III. Interacting with Healthcare Professionals and Promoting Products

Healthcare is a highly regulated industry, and we must adhere to strict guidelines, especially when we are interacting with healthcare professionals or promoting products. The sections below address our obligations in this area, and our internal policies and procedures provide further guidance.

A. Interactions with Healthcare Professionals (HCPs)

Strict regulations govern not only our promotional activities but also our educational and commercial relationships with healthcare providers (HCPs) and healthcare organizations (HCOs), including our interactions with physicians, nurses, pharmacists and others who administer, prescribe, purchase or recommend prescription medicines, and organizations that employ HCPs or otherwise provide healthcare services.

All interactions with HCPs and HCOs must be guided by applicable laws, regulations, relevant industry codes, and Company policies, including this Code of Ethics.

The following general principles govern our interactions with HCPs and HCOs worldwide:

- We will not use any unlawful inducement to sell or to arrange for the recommendation or prescribing of our products.
- We believe that enduring customer relationships are based on integrity and trust. We seek to gain advantage over our competitors through superior products, quality, manufacturing, and service, but never through improper business practices.
- Our relationships with HCPs and HCOs are intended to benefit patient care and enhance the practice of medicine. Interactions should not tempt HCPs to place their own personal interests above those of the organizations they represent or the patients who will use or need our products.
- We will not, directly or indirectly, offer or solicit any improper payment, contribution or other transfer of value for the purpose of obtaining, giving or keeping business.

B. Product Promotion

Promotional activities and materials must always comply with all applicable laws, regulations and codes, and our own applicable policies. All promotional activities and materials must be truthful, accurate, not misleading, consistent with approved product labeling and properly substantiated. Promotional activities and materials must never involve promotion of drugs for off-label indications, uses, doses or populations.

In addition to the laws and regulations surrounding product promotion, we are also guided by our policy regarding the submission, review, and approval process for promotional materials. Use of unapproved promotional materials is prohibited; therefore, all personnel involved in the marketing and promotion of our products must familiarize themselves with and abide by such policy.

IV. Conducting Business Ethically

At Ionis, we understand that we have a responsibility to help create the future, and we pride ourselves on doing so both ethically and with integrity.

A. **Interactions with Competitors**

As a vigorous competitor in the marketplace, we seek economic knowledge about our competitors. However, we do not engage in illegal or improper acts to acquire any competitor information. In addition, we do not hire competitors' employees for the purpose of obtaining confidential information, urge competitors' personnel, customers or suppliers to disclose confidential information, or seek such information from competitors' employees subsequently hired by the Company.

B. **Anti-Bribery & Anti-Corruption**

We comply with anti-bribery and anti-corruption laws, including but not limited to the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and the Anti-Kickback Statute. We are prohibited from paying or receiving any bribe, kickback or other similar payment to or from any public official, or government, or other individual, to secure any concession, contract or other favorable treatment for Ionis or any one of us. This prohibition extends to the payment or receipt of money or anything else of value when we have reason to believe that some part of the payment or "fee" will be used for a bribe, kickback or other similar activity. We have adopted a detailed policy setting forth our expectations on these matters.

C. **Books, Records, and Information Management**

Our books of account and records must be accurately maintained and fully disclose the nature of transactions reflected in them. Penalties for violating the laws and regulations in this area could be severe for the Company and the employees involved. We maintain these books according to the following record-keeping requirements and in compliance with the spirit and letter of applicable laws and regulations:

- All books, records and accounts must be kept in reasonable detail and must accurately and fairly reflect all transactions and dispositions of the Company's assets.
- All disbursements of funds and all receipts must be properly and promptly recorded.
- No undisclosed or unrecorded fund or account may be established for any purposes.
- False or artificial entries must never be made in any of the books or records of the Company, or in any public record for any reason, nor should the Company's records be falsely altered in any way.

Record Retention

Various laws and regulations require the retention of certain records for certain periods of time, particularly those relating to taxes, personnel, contracts, and corporate structure. When litigation or a government investigation or audit is pending or imminent, we

must not destroy any relevant records until the matter is closed. Destruction of records to avoid disclosure in a legal proceeding or investigation may constitute a criminal offense.

Audit Integrity

No officer or director of Ionis, or any other person acting under their direction, will take any action to fraudulently influence, coerce, manipulate, or mislead any independent accountant engaged in the performance of an audit of the Company's financial statements for the purpose of rendering the Company's financial statements materially misleading.

D. Conflicts of Interest

Employees of the Company cannot, without the Company's express written consent, engage in any employment or business activity other than for the Company. Unless expressly consented to in writing by the Company, our personal activities should not involve the use of Company property, facilities, influence, or other resources, and should not reflect discredit upon the Company.

We will not engage in any activity through which any one of us stands to benefit personally from any sale or purchase of goods and services by the Company. This provision does not apply to benefits arising out of your employment with the Company, or to your ownership of equity in a publicly traded company which was purchased on the open market and represents (i) less than 1% of such company's outstanding equity and (ii) less than 5% of your equity portfolio.

Each of us must promptly disclose in writing any actual or potential conflicts of interest to Ionis' CEO or Chief Legal Officer. Ionis will review the matter, as set forth above, and communicate its position in writing.

Pre-Clearance Procedure

All employees must pre-clear any employment or business activity other than for the Company. To do so, you should contact either (a) the CEO or (b) Chief Legal Officer and explain to them the proposed activity. If you are an executive officer, the Nominating, Governance and Review Committee will evaluate the proposed activity and will notify you whether such activity has been approved. For all other employees, the CEO or Chief Legal Officer will evaluate the proposed activity and will notify you whether such activity has been approved. In some cases, the individual(s) reviewing your request may discuss your request with other members of the Company's management team. Remember, just because you have to pre-clear a certain activity does not mean that the Company will prevent you doing it.

There are some business activities that the Company's management has already determined should not cause a conflict of interest. A list of such activities is available within the Company's policies and procedures. For these activities, employees generally do not need to obtain written permission from the Company; however, if in doubt, you should follow the pre-clearance procedures outlined above.

Members of the Board of Directors must request and receive a determination of no conflict from the Nominating, Governance and Review Committee before engaging in any activity, including acting as an employee or director for any entity that directly or indirectly competes with the Company.

E. Dishonesty & Theft

We will not knowingly:

- Engage in fraud or embezzlement affecting Company property, funds, securities, or other assets; or
- Willfully damage or destroy property or materials belonging to the Company, its employees, or customers.
- In addition, without proper supervisory authorization, we will not knowingly:
- Remove property, material or money from the Company, its employees, or its customers for personal gain, personal use, resale or to give to another party;
- Receive property, materials or money belonging to the Company, its employees or its customers for personal gain, personal use, resale or to give to another party;
- Access, remove, publish, destroy, or alter private or confidential information existing in physical Company records or electronically stored information;
- Remove, publish, destroy, or alter other physical Company records or electronically stored information affecting the Company, its employees, or corporate partners; or
- Copy, reprint, duplicate, or recreate in whole or in part, computer programs or related systems developed or modified by Ionis personnel or acquired from outside vendors.

F. Disclosures and Insider Trading

We are committed to complying with all applicable securities laws and to filing fair and accurate disclosures with the SEC. The Company prohibits the use of material nonpublic information in the trading of securities. We all accept and agree that we will, at all times, adhere to the Company's insider trading policy.

G. Protecting Intellectual Property & Confidential Information

As the leader in the discovery and development of RNA-targeted therapeutics, we recognize that our intellectual property (IP) is one of our greatest assets. Innovation is core to who we are. Each of us is responsible for protecting our existing IP and disclosing any new IP that we create during our employment with Ionis. Additionally, we respect the IP rights of others.

We also recognize the importance of safeguarding our confidential information, as well as confidential information that is disclosed to us by third parties. Such information can include but is not limited to, employee records, business plans, marketing strategies, lab notebooks, manufacturing information, and other similarly sensitive information. We each have a responsibility to maintain the confidentiality of this type of information and ensure that when we share such information, we do so with authorization, in a controlled environment, where only the intended parties can access it.

V. Reporting, Resources, & Questions

A. **Reporting a Violation & Ionis Helpline**

We all have the obligation to report when we see conduct that is not aligned with this Code of Ethics, or any of the laws, regulations or policies underpinning this Code of Ethics. Ethical conduct does not stop at the individual; it requires a communal effort that holds each of us accountable when something does not seem right. We strive to create an environment in which we all feel comfortable speaking up, including in situations where we believe violations of policies or standards may have occurred. We encourage everyone to raise any concerns or questions of compliance to any member of management, Human Resources, Legal or Compliance. However, we understand there may be situations where that could be awkward or challenging. As a result, we have a confidential helpline that allows us to raise questions or report concerns anonymously via phone or web submission.

The Ionis Helpline may be accessed at the following address:

<https://secure.ethicspoint.eu/domain/media/en/gui/105873/index.html>.

B. **Investigating a Violation**

We take seriously any report of suspected violations of this Code of Ethics, Company policies, and applicable laws, and we will thoroughly investigate such reports. If our investigation substantiates the report, we will take swift and appropriate remedial action.

C. **Non-Retaliation Policy**

At Ionis, we strive for excellence and always expect ethical behavior, which is why we do not tolerate retaliation, in any form, against anyone who has, in good faith, reported a concern or a suspected violation of this Code of Ethics, Company policy, or any law or regulation. We have adopted a detailed policy prohibiting such retaliation. As noted above, it is our duty to report potential violations; therefore, we should all feel safe and confident knowing that we will not experience retaliation as a result of fulfilling our ethical obligations.

D. **Consequences for Violating this Code of Ethics**

If you violate this Code of Ethics, Company policies, or the law, you may be subject to disciplinary action, up to and including termination. If necessary, Ionis may suspend your employment during an investigation into an alleged breach. Additional actions may include reassignment of work duties and limitation in future job opportunities. Ionis may refer violations of law to local or federal law enforcement authorities for possible prosecution.

E. **Contact Information for Questions**

If you have any questions about this Code of Ethics or its application in specific situations, please contact any member of management, Legal, Compliance or Human Resources.