#### MIRAGEN THERAPEUTICS, INC.

#### CODE OF BUSINESS CONDUCT AND ETHICS

# APPROVED BY THE BOARD OF DIRECTORS ON FEBRUARY 13, 2017; AMENDED SEPTEMBER 19, 2019

#### Introduction

Miragen Therapeutics, Inc., a Delaware corporation (together with its subsidiaries, the "Company"), is committed to creating an environment where we are able to do our best work while maintaining the highest standards of business conduct and ethics. This Code of Business Conduct and Ethics (the "Code") reflects the business practices and principles of behavior that support this commitment. We expect every employee, officer and director to read and understand the Code and its application to the performance of his or her business responsibilities. References in the Code to employees are intended to cover officers and, as applicable, directors.

The Code addresses conduct that is particularly important to proper dealings with the people and entities with whom we interact, including each other and our customers, but reflects only a part of our commitment. From time to time we may adopt additional policies or procedures with which our personnel are expected to comply. Where there is no stated guideline in the Code or otherwise, it is the responsibility of each employee to apply common sense, together with his or her own highest personal ethical standards, in making business decisions.

By working at the Company, you agree to comply with the Code, and to revisit and review it regularly and whenever we notify you of any material updates. If you do not agree to comply, please let us know immediately. Action by members of your immediate family, significant others or other persons who live in your household (referred to in the Code as "family members") also may potentially result in ethical issues to the extent that they involve Company business. For example, acceptance of inappropriate gifts by a family member from one of our suppliers could create a conflict of interest and result in a Code violation attributable to you. Consequently, in complying with the Code, you should consider not only your own conduct, but also that of your immediate family members, significant others and other persons who live in your household. Nothing in the Code alters the at-will employment policy of the Company applicable to all U.S. employees.

Violations of the Code will not be tolerated. Any employee who violates the standards in the Code may be subject to disciplinary action, which, depending on the nature of the violation and the history of the employee, may range from a warning or reprimand to and including termination of employment and, in appropriate cases, civil legal action or referral for regulatory or criminal prosecution.

You should not hesitate to ask questions about whether any conduct may violate the Code, voice concerns or clarify gray areas. Section 11 below details the compliance resources available to you.

#### 1. Honest and Ethical Conduct

It is the policy of the Company to promote high standards of integrity by conducting our affairs in an honest and ethical manner. The integrity and reputation of the Company depends on the honesty, fairness and integrity brought to the job by each person associated with us. Unyielding personal integrity is the foundation of corporate integrity.

### 2. Legal Compliance

Obeying the law, both in letter and in spirit, is the foundation of the Code. Our success depends upon each employee's operating within legal guidelines and cooperating with local, national and international authorities. We expect employees to understand the legal and regulatory requirements applicable to their business units and areas of responsibility. We hold periodic training sessions to ensure that all employees comply with the relevant laws, rules and regulations associated with their employment, including laws prohibiting insider trading (discussed in further detail below). While we do not expect you to memorize every detail of these laws, rules and regulations, we want you to be able to determine when to seek advice from others. If you do have a question in the area of legal compliance, it is important that you not hesitate to seek answers from your supervisor or the Company's Compliance Officer, Miles Gerson, the Company's Senior Director of Business Development and Legal Affairs (the "Compliance Officer").

Disregard of the law will not be tolerated. Violation of domestic or foreign laws, rules and regulations may subject an individual, as well as the Company, to civil and/or criminal penalties. You should be aware that conduct and records, including emails, are subject to internal and external audits and to discovery by third parties in the event of a government investigation or civil litigation. It is in everyone's best interests to know and comply with our legal obligations.

#### (a) Insider Trading

Employees who have access to confidential (or "inside") information are not permitted to use or share that information for stock trading purposes or for any other purpose except to conduct our business. All nonpublic information about the Company or about companies with which we do business is considered confidential information. To use material nonpublic information in connection with buying or selling securities, including "tipping" others who might make an investment decision on the basis of this information, is not only unethical, it is illegal. Employees must exercise the utmost care when handling material inside information. Please refer to the Company's Insider Trading Policy for more detailed information.

#### (b) International Business Laws

Our employees are expected to comply with the applicable laws in all countries to which they travel, in which they operate and where we otherwise do business, including laws prohibiting bribery, corruption or the conduct of business with specified individuals, companies or countries. The fact that, in some countries, certain laws are not enforced or that violation of those laws is not subject to public criticism will not be accepted as an excuse for noncompliance. In addition, we expect employees to comply with U.S. laws, rules and regulations governing the conduct of business by its citizens and corporations outside the United States. These U.S. laws, rules and regulations, which extend to all our activities outside the United States, include anti-bribery regulations, embargoes, export controls and anti-boycott regulations. If you have a question as to whether an activity is restricted or prohibited, please ask the Compliance Officer before taking any action, including giving any verbal assurances that might be regulated by international laws. Please refer to the Company's Anti-Corruption Policy for more detailed information.

#### (c) Antitrust

Antitrust laws are designed to protect the competitive process. These laws are based on the premise that the public interest is best served by vigorous competition and will suffer from illegal agreements or collusion among competitors. Antitrust laws generally prohibit:

- agreements, formal or informal, with competitors that harm competition or customers, including price fixing and allocations of customers, territories or contracts;
- agreements, formal or informal, that establish or fix the price at which a customer may resell a product; and
- the acquisition or maintenance of a monopoly or attempted monopoly through anticompetitive conduct.

Certain kinds of information, such as pricing, production and inventory, should not be exchanged with competitors, regardless of how innocent or casual the exchange may be and regardless of the setting, whether business or social.

Antitrust laws impose severe penalties for certain types of violations, including criminal penalties and potential fines and damages of millions of dollars, which may be tripled under certain circumstances. Understanding the requirements of antitrust and unfair competition laws of the various jurisdictions where we do business can be difficult, and you are urged to seek assistance from your supervisor or the Compliance Officer whenever you have a question relating to these laws.

## (d) Environmental Compliance

U.S. federal law imposes criminal liability on any person or company that contaminates the environment with any hazardous substance that could cause injury to the community or environment. Violation of environmental laws can involve monetary fines and imprisonment. We expect employees to comply with all applicable environmental laws.

#### 3. Fair Dealing

We strive to outperform our competition fairly and honestly. Advantages over our competitors are to be obtained through superior performance of our products and services, not through unethical or illegal business practices. Acquiring proprietary information from others through improper means, possessing trade secret information that was improperly obtained, or inducing improper disclosure of confidential information from past or present employees of other companies is prohibited, even if motivated by an intention to advance our interests. If information is obtained by mistake that may constitute a trade secret or other confidential information of another business, or if you have any questions about the legality of proposed information gathering, you must consult your supervisor or the Compliance Officer, as further described in Section 11.

You are expected to deal fairly with our customers, employees and anyone else with whom you have contact in the course of performing your job. Be aware that the Federal Trade Commission Act provides that "unfair methods of competition in commerce, and unfair or deceptive acts or practices in commerce, are declared unlawful." It is a violation of the Act to engage in deceptive, unfair or unethical practices and to make misrepresentations in connection with sales activities.

Employees involved in procurement have a special responsibility to adhere to principles of fair competition in the purchase of products and services by selecting suppliers based exclusively on normal commercial considerations, such as quality, cost, availability, service and reputation, and not on the

receipt of special favors.

## 4. Conflicts of Interest

We respect the rights of our employees to manage their personal affairs and investments and do not wish to impinge on their personal lives. At the same time, employees should avoid conflicts of interest that occur when their personal interests may interfere in any way with the performance of their duties or the best interests of the Company. A conflicting personal interest could result from an expectation of personal gain now or in the future or from a need to satisfy a prior or concurrent personal obligation. We expect our employees to be free from influences that conflict with the best interests of the Company or might deprive the Company of their undivided loyalty in business dealings. Even the appearance of a conflict of interest where none actually exists can be damaging and should be avoided. Whether or not a conflict of interest exists or will exist can be unclear. Conflicts of interest are prohibited.

If you have any questions about a potential conflict or if you become aware of an actual or potential conflict, and you are not an officer or director of the Company, you should discuss the matter with your supervisor or the Compliance Officer (as further described in Section 11). Supervisors may not make determinations as to whether a problematic conflict of interest exists without first seeking the approval of the Compliance Officer and providing the Compliance Officer with a written description of the activity. If the supervisor is involved in the potential or actual conflict, you should discuss the matter directly with the Compliance Officer. Officers and directors may seek determinations from the audit committee of the Company's Board of Directors (the "Audit Committee"). Factors that may be considered in evaluating a potential conflict of interest are, among others:

- whether it may interfere with the employee's job performance, responsibilities or morale;
- whether the employee has access to confidential information;
- whether it may interfere with the job performance, responsibilities or morale of others within the organization;
- any potential adverse or beneficial impact on our business;
- any potential adverse or beneficial impact on our relationships with our collaboration partners, customers, suppliers or other service providers;
- whether it would enhance or support a competitor's position;
- the extent to which it would result in financial or other benefit (direct or indirect) to the employee;
- the extent to which it would result in financial or other benefit (direct or indirect) to one of our customers, suppliers or other service providers; and
- the extent to which it would appear improper to an outside observer.

Although no list can include every possible situation in which a conflict of interest could arise, the following are examples of situations that may, depending on the facts and circumstances, involve problematic conflicts of interests:

• Employment by (including consulting for) or service on the board of a collaboration partner, competitor, customer, supplier or service provider. Activity that enhances or

supports the position of a competitor to the detriment of the Company is prohibited, including employment by or service on the board of a competitor. Employment by or service on the board of a customer, supplier or service provider is generally discouraged and you must seek authorization in advance if you plan to take such a position.

- Owning, directly or indirectly, a significant financial interest in any entity that does business, seeks to do business or competes with us. In addition to the factors described above, persons evaluating ownership in other entities for conflicts of interest will consider the size and nature of the investment; the nature of the relationship between the other entity and the Company; the employee's access to confidential information and the employee's ability to influence Company decisions. If you would like to acquire a financial interest of that kind, you must seek approval in advance.
- Soliciting or accepting gifts, favors, loans or preferential treatment from any person or entity that does business or seeks to do business with us. See Section 10 for further discussion of the issues involved in this type of conflict.
- Soliciting contributions to any charity or for any political candidate from any person or entity that does business or seeks to do business with us.
- Taking personal advantage of corporate opportunities. See Section 8 for further discussion of the issues involved in this type of conflict.
- Moonlighting without permission.
- Conducting our business transactions with your family member or a business in which you have a significant financial interest. Material related-party transactions approved by the Audit Committee and involving any executive officer or director will be publicly disclosed as required by applicable laws and regulations in keeping with the Company's Related-Person Transactions Policy.
- Exercising supervisory or other authority on behalf of the Company over a co-worker who is also a family member. The employee's supervisor and/or the Compliance Officer will consult with the Human Resources department to assess the advisability of reassignment.

Loans to, or guarantees of obligations of, employees or their family members by the Company are of special concern and could constitute an improper personal benefit to the recipients of these loans or guarantees, depending on the facts and circumstances. Some loans are expressly prohibited by law and applicable law may require that our Board of Directors approve loans and guarantees to employees. As a result, loans and guarantees by the Company must be approved in advance by the Board of Directors or a duly authorized committee of the Board of Directors except that the Board of Directors or such committee may delegate to specific officers of the Company the authority to approve certain loans and guarantees.

# 5. Protection and Proper Use of Company Assets

All employees are expected to protect our assets and ensure their efficient use. Theft, carelessness and waste have a direct impact on our profitability. Our property, such as lab equipment, office supplies, computer equipment, products and buildings, are expected to be used only for legitimate business purposes, although incidental personal use may be permitted. You may not, however, use our corporate name, any brand name or trademark owned or associated with the Company or any letterhead stationery for any personal purpose.

You may not, while acting on behalf of the Company or while using our computing or communications equipment or facilities, either:

- access the internal computer system (also known as "hacking") or other resource of another entity without express written authorization from the entity responsible for operating that resource; or
- commit any unlawful or illegal act, including harassment, libel, fraud, sending of unsolicited bulk email (also known as "spam") or material of objectionable content in violation of applicable law, trafficking in contraband of any kind or espionage of any kind.

If you receive authorization to access another entity's internal computer system or other resource, you must make a permanent record of that authorization so that it may be retrieved for future reference, and you may not exceed the scope of that authorization.

Any misuse or suspected misuse of our assets must be immediately reported to your supervisor or the Compliance Officer.

# 6. Confidentiality

One of our most important assets is our confidential information. As an employee of the Company, you may learn of information about the Company that is confidential and proprietary. You also may learn of information before that information is released to the general public. Employees who have received or have access to confidential information should take care to keep this information confidential. Confidential information includes non-public information that might be of use to competitors or harmful to the Company or its customers if disclosed, such as business, marketing and service plans, financial information, product ideas, proprietary data, including without limitation clinical and pre-clinical trial and study results, product candidate and development ideas, designs and techniques, databases, customer and supplier lists, pricing strategies, inventions, mask works, personnel data, personally identifiable information pertaining to our employees, customers or other individuals (including, for example, names, addresses, telephone numbers and social security numbers), and similar types of information provided to us by our collaboration partners, customers, suppliers and partners. This information may be protected by patent, trademark, copyright and trade secret laws.

In addition, because we interact with other companies and organizations, there may be times when you learn confidential information about other companies before that information has been made available to the public. You must treat this information in the same manner as you are required to treat our confidential and proprietary information. There may even be times when you must treat as confidential the fact that we have an interest in, or are involved with, another company.

You are expected to keep confidential and proprietary information confidential unless and until that information is released to the public through approved channels (usually through a press release, a filing with the Securities and Exchange Commission (the "SEC") or a formal communication from a member of senior management, as further described in Section 7). Every employee has a duty to refrain from disclosing to any person confidential or proprietary information about us or any other company learned in the course of employment here, until that information is disclosed to the public through approved channels. This policy requires you to refrain from discussing confidential or proprietary information with outsiders and even with other employees of the Company, unless those fellow employees have a legitimate need to know the information in order to perform their job duties. Unauthorized use or distribution of this information could also be illegal and result in civil liability and/or criminal penalties.

You should also take care not to inadvertently disclose confidential information. Materials that contain confidential information, such as memos, notebooks, computer disks, mobile devices, memory sticks and laptop computers, should be stored securely. Unauthorized posting or discussion of any information concerning our business, information or prospects on the Internet is prohibited. You may not discuss our business, information or prospects on blog posts or social media sites (including Facebook and Twitter), or in response to news reports or articles, regardless of whether you use your own name or a pseudonym. Be cautious when discussing sensitive information in public places like elevators, airports, restaurants and "quasi-public" areas in and around our place of business. All Company emails, voicemails and other communications are presumed confidential and should not be forwarded or otherwise disseminated outside of the Company except where required for legitimate business purposes.

In addition to the above responsibilities, if you are handling information protected by any privacy policy published by us, such as our website privacy policy, then you must handle that information in accordance with the applicable policy.

#### 7. Media/Public Discussions

It is our policy to disclose material information concerning the Company to the public only through specific limited channels to avoid inappropriate publicity and to ensure that all those with an interest in the company will have equal access to information. All inquiries or calls from the press and financial analysts should be referred to the Company's Chief Executive Officer (the "CEO"), Chief Business Officer (the "CEO"), Chief Financial Officer (the "CFO") or Executive Vice President, Research and Development (the "EVP"). We have designated our CEO, CBO, CFO and EVP as our official spokespersons for financial matters. The CEO or CFO may designate other officers of the Company to respond to inquiries regarding marketing, technical and other specific areas of interest. Unless a specific exception has been made by the CEO or CFO, these designees are the only people who may communicate with the press on behalf of the Company. You also may not provide any information to the media about us off the record, for background, confidentially or secretly.

# 8. Corporate Opportunities

You may not take personal advantage of opportunities for the Company that are presented to you or discovered by you as a result of your position with us or through your use of corporate property or information. Even opportunities that are acquired privately by you may be questionable if they are related to our existing or proposed lines of business. Significant participation in an investment or outside business opportunity that is directly related to our lines of business must be pre-approved. You may not use your position with us or corporate property or information for improper personal gain, nor should you compete with us in any way.

# 9. Maintenance of Corporate Books, Records, Documents and Accounts; Financial Integrity; Public Reporting

The integrity of our records and public disclosure depends upon the validity, accuracy and completeness of the information supporting the entries to our books of account. Therefore, our corporate and business records should be completed accurately and honestly. The making of false or misleading entries, whether they relate to financial results or test results, is strictly prohibited. Our records serve as a basis for managing our business and are important in meeting our obligations to customers, suppliers, creditors, employees and others with whom we do business. As a result, it is important that our books, records and accounts accurately and fairly reflect, in reasonable detail, our assets, liabilities, revenues, costs and expenses, as well as all transactions and changes in assets and liabilities. We require that:

- no entry be made in our books and records that intentionally hides or disguises the nature of any transaction or of any of our liabilities or misclassifies any transactions as to accounts or accounting periods;
- transactions be supported by appropriate documentation;
- the terms of sales and other commercial transactions be reflected accurately in the documentation for those transactions and all such documentation be reflected accurately in our books and records:
- employees comply with our system of internal controls; and
- no cash or other assets be maintained for any purpose in any unrecorded or "off-the-books" fund.

Our accounting records are also relied upon to produce reports for our management, stockholders and creditors, as well as for governmental agencies. In particular, we rely upon our accounting and other business and corporate records in preparing the periodic and current reports that we file with the SEC. Securities laws require that these reports provide full, fair, accurate, timely and understandable disclosure and fairly present our financial condition and results of operations. Employees who collect, provide or analyze information for or otherwise contribute in any way in preparing or verifying these reports should strive to ensure that our financial disclosure is accurate and transparent and that our reports contain all of the information about the Company that would be important to enable stockholders and potential investors to assess the soundness and risks of our business and finances and the quality and integrity of our accounting and disclosures. In addition:

- no employee may take or authorize any action that would intentionally cause our financial records or financial disclosure to fail to comply with generally accepted accounting principles, the rules and regulations of the SEC or other applicable laws, rules and regulations;
- all employees must cooperate fully with our finance and accounting department, as well as our independent public accountants and counsel, respond to their questions with candor and provide them with complete and accurate information to help ensure that our books and records, as well as our reports filed with the SEC, are accurate and complete;
- no employee, director or person acting under their direction, may coerce, manipulate, mislead or fraudulently influence our finance and accounting department, our independent public accountants or counsel, if the employee, director or other person knows or should know that the action, if successful, could result in rendering the Company's financial statements materially misleading; and
- no employee should knowingly make (or cause or encourage any other person to make) any
  false or misleading statement in any of our reports filed with the SEC or knowingly omit (or
  cause or encourage any other person to omit) any information necessary to make the
  disclosure in any of our reports accurate in all material respects.

Any employee who becomes aware of any departure from these standards has a responsibility to report his or her knowledge promptly to a supervisor, the Compliance Officer, the Audit Committee or one of the other compliance resources described in Section 11 or in accordance with the provisions of the Company's Whistleblower Policy on reporting complaints regarding accounting and auditing matters.

# 10. Gifts and Entertainment

Business gifts and entertainment are meant to create goodwill and sound working relationships and not to gain improper advantage with customers or facilitate approvals from government officials. The exchange, as a normal business courtesy, of meals or entertainment (such as tickets to a game or the theatre or a round of golf) is a common and acceptable practice as long as it is not extravagant. Unless express permission is received from a supervisor, the Compliance Officer or the Audit Committee, gifts and entertainment cannot be offered, provided or accepted by any employee unless consistent with customary business practices and not (a) of more than token or nominal monetary value, (b) in cash, (c) susceptible of being construed as a bribe or kickback, (d) made or received on a regular or frequent basis or (e) in violation of any laws. This principle applies to our transactions everywhere in the world, even where the practice is widely considered "a way of doing business." Employees should not accept gifts or entertainment that may reasonably be deemed to affect their judgment or actions in the performance of their duties. Our customers, suppliers and the public at large should know that our employees' judgment is not for sale.

Under some statutes, such as the U.S. Foreign Corrupt Practices Act, giving anything of value to a government official to obtain or retain business or favorable treatment is a criminal act subject to prosecution and conviction. The Foreign Corrupt Practices Act and our Anti-Corruption Policy, to which you are subject, specifically prohibit directly or indirectly giving anything of value to a government official to obtain or retain business or favorable treatment and requires the maintenance of accurate books of account, with all company transactions being properly recorded.

Discuss with your supervisor or the Compliance Officer any proposed entertainment or gifts if you are uncertain about their appropriateness.

#### 11. Compliance Standards and Procedures

Compliance Resources

To facilitate compliance with the Code, we have implemented a program of Code awareness, training and review. Stephanie Hartsel will initially oversee this program. The Compliance Officer is a person to whom you can address any questions or concerns. In addition to fielding questions or concerns with respect to potential violations of the Code, the Compliance Officer, or the Compliance Officer's designee, if applicable, is responsible for:

- investigating possible violations of the Code;
- training new employees in Code policies;
- conducting annual training sessions to refresh employees' familiarity with the Code;
- distributing copies of the Code annually via email and the Company's secure internal human resources website to each employee with a reminder that each employee is responsible for reading, understanding and complying with the Code;
- updating the Code as needed and alerting employees to any updates, with appropriate approval of the Board of Directors, as appropriate, to reflect changes in the law, Company operations and in recognized best practices, and to reflect the Company's experience; and
- otherwise promoting an atmosphere of responsible and ethical conduct.

Your most immediate resource for any matter related to the Code is your supervisor. He or she may have the information you need or may be able to refer the question to another appropriate source. There may, however, be times when you prefer not to go to your supervisor. In these instances, you should feel free to discuss your concern with the Compliance Officer. If you are uncomfortable speaking with the Compliance Officer because he or she works in your department or is one of your supervisors, please contact the Chief Executive Officer. Of course, if your concern involves potential misconduct by another person and relates to questionable accounting or auditing matters under the Company's Whistleblower Policy, you may report that violation as set forth in such policy.

Clarifying Questions and Concerns; Reporting Possible Violations

If you encounter a situation or are considering a course of action and its appropriateness is unclear, discuss the matter promptly with your supervisor or the Compliance Officer; even the appearance of impropriety can be very damaging and should be avoided.

If you are aware of a suspected or actual violation of Code standards by others, you have a responsibility to report it. You are expected to promptly provide a compliance resource with a specific description of the violation that you believe has occurred, including any information you have about the persons involved and the time of the violation. Whether you choose to speak with your supervisor or the Compliance Officer, you should do so without fear of any form of retaliation. We will take prompt disciplinary action against any employee who retaliates against you, including termination of employment.

Supervisors must promptly report any complaints or observations of Code violations to the Compliance Officer. If you believe your supervisor has not taken appropriate action, you should contact the Compliance Officer directly. The Compliance Officer will investigate all reported possible Code violations promptly and with the highest degree of confidentiality that is possible under the specific circumstances. Neither you nor your supervisor may conduct any preliminary investigation, unless authorized to do so by the Compliance Officer. Your cooperation in the investigation will be expected. As needed, the Compliance Officer will consult with legal counsel, the Human Resources department and/or Audit Committee. It is our policy to employ a fair process by which to determine violations of the Code.

With respect to any complaints or observations of violations that may involve accounting, internal accounting controls and auditing concerns, under the Company's Whistleblower Policy, the Compliance Officer shall promptly inform the Audit Committee, and the Audit Committee shall be responsible for supervising and overseeing the inquiry and any investigation that is undertaken. If a potential violation is reported via the confidential hotline or email address as provided under the Whistleblower Policy, the Audit Committee will be notified automatically and directly.

If any investigation indicates that a violation of the Code has probably occurred, we will take such action as we believe to be appropriate under the circumstances. If we determine that an employee is responsible for a Code violation, he or she will be subject to disciplinary action up to, and including, termination of employment and, in appropriate cases, civil action or referral for criminal prosecution. Appropriate action may also be taken to deter any future Code violations.

## 12. Waivers

Any waiver of the Code for executive officers (including, where required by applicable laws, our principal executive officer, principal financial officer, principal accounting officer or controller (or persons performing similar functions)) or directors may be authorized only by our Board of Directors or, to the extent permitted by the rules of The Nasdaq Stock Market LLC and our Corporate Governance Guidelines, a committee of the Board of Directors, and will be disclosed to stockholders as required by applicable laws, rules and regulations.

# MIRAGEN THERAPEUTICS, INC. CODE OF BUSINESS CONDUCT AND ETHICS

# Acknowledgement

| I confirm that I have received a copy of the Miragen Therapeutics, Inc. Code of Business Conduc    |
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| and Ethics and that I have read, understood and agree to comply with the Miragen Therapeutics, Inc |
| Code of Business Conduct and Ethics.   |
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